ಕರ್ನಾಟಕ ಸರ್ಕಾರ

ಶಾಲಾ ಶಿಕ್ಷಣ ಮತ್ತು ಸಾಕ್ಷರತಾ ಇಲಾಖೆ

ಜಿಲ್ಲಾ ಶಿಕ್ಷಣ ಮತ್ತು ತರಬೇತಿ ಸಂಸ್ಥೆ, ರಾಜಾಜಿನಗರ, ಬೆಂಗಳೂರು ಉತ್ತರ ಜಿಲ್ಲೆ.

ಪಾಠ ಆಧಾರಿತ ಮೌಲ್ಯಾಂಕನ ಸಾಮಗ್ರಿ

2025-26

ವಿಷಯ: ಗಣಿತ

ತರಗತಿ: 5ನೇ

ರಾಜ್ಯ ಶಿಕ್ಷಣ ಸಂಶೋಧನೆ ಮತ್ತು ತರಬೇತಿ ಇಲಾಖೆ,

ಬನಶಂಕರಿ 3ನೇ ಹಂತ, ಬೆಂಗಳೂರು-560085

ಪರಿಕಲ್ಪನೆ ಮತ್ತು ಮಾರ್ಗದರ್ಶನ	
ಶ್ರೀಮತಿ ರಶ್ಮಿ ಮಹೇಶ್ ವಿ, ಭಾ.ಆ.ಸೇ ಸರ್ಕಾರದ ಪ್ರಧಾನ ಕಾರ್ಯದರ್ಶಿಗಳು, ಶಾಲಾ ಶಿಕ್ಷಣ ಮತ್ತು ಸಾಕ್ಷರತಾ ಇಲಾಖೆ	
ಡಾ. ತ್ರಿಲೋಕ್ ಚಂದ್ರ ಕೆ ವಿ., ಭಾ.ಆ.ಸೇ ಆಯುಕ್ತರು, ಶಾಲಾ ಶಿಕ್ಷಣ ಇಲಾಖೆ, ಬೆಂಗಳೂರು	ಶ್ರೀ ಗೋಪಾಲಕೃಷ್ಣ ಹೆಚ್. ಎನ್. ನಿರ್ದೇಶಕರು, ಡಿ ಎಸ್ ಇ ಆರ್ ಟಿ, ಬೆಂಗಳೂರು
ಡಯಟ್ ಸಹಕಾರ	
ಪ್ರಾಂಶುಪಾಲರು ಶ್ರೀಮತಿ ಪ್ರಮೀತಾ ಅದೋನಿ, ಪ್ರಾಂಶುಪಾಲರು, ಡಯಟ್, ಬೆಂಗಳೂರು ಉತ್ತರ ಜಿಲ್ಲೆ.	**ಮೆಂಟರ್** ಶ್ರೀಮತಿ ಲೀಲಾವತಿ ಪಿ ಎಸ್, ಉಪನ್ಯಾಸಕರು, ಡಯಟ್, ಬೆಂಗಳೂರು ಉತ್ತರ ಜಿಲ್ಲೆ.
ಸಂಯೋಜನೆ	
ಶ್ರೀಮತಿ ರಾಧಾ ಪಿ, ಹಿರಿಯ ಸಹಾಯಕ ನಿರ್ದೇಶಕರು, ಡಿ ಎಸ್ ಇ ಆರ್ ಟಿ, ಬೆಂಗಳೂರು	
ಪಾಠ ಆಧಾರಿತ ಮೌಲ್ಯಾಂಕನ ಸಾಮಗ್ರಿ ರಚನಾ ಸಂಪನ್ಮೂಲ ತಂಡ	
1. ಅಸ್ಮಾ ತಬಸ್ಸುಮ್, ಸ ಮಾ ಪ್ರಾ ಶಾಲೆ, ಗಂಗಾನಗರ 2. ಉಮಾ ಸಿ ಕೆ, ಸ ಹಿ ಪ್ರಾ ಶಾಲೆ, ಶ್ರೀರಾಂಪುರ (BOYS) 3. ಜ಼ರೀನ ತಾಜ್, ಸ ಕಿ ಪ್ರಾ ಶಾಲೆ ಗೋವಿಂದಪುರ 4. ಶುಜಾಯತ್ ಉಲ್ಲಾ ಖಾನ್, ಸ ಉ ಪ್ರಾ ಶಾಲೆ, ರೆಹಮತ್ ನಗರ	
ಮಾರ್ಗದರ್ಶಕರು ಹಾಗೂ ಪರಿಶೀಲಕರು	
ಶ್ರೀಮತಿ ಪ್ರಮೀತಾ ಅದೋನಿ, ಪ್ರಾಂಶುಪಾಲರು, ಡಯಟ್, ಬೆಂಗಳೂರು ಉತ್ತರ ಜಿಲ್ಲೆ.	ಶ್ರೀಮತಿ ಲೀಲಾವತಿ ಪಿ ಎಸ್, ಉಪನ್ಯಾಸಕರು, ಡಯಟ್, ಬೆಂಗಳೂರು ಉತ್ತರ ಜಿಲ್ಲೆ.

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Lesson 1: The Fish Tale

Learning Outcomes

By the end of this lesson, children will be able to:

- Understand and use large numbers in real-life contexts (boats, catches, money).
- Solve simple problems related to multiplication and division using large numbers.
- Estimate and compare costs, earnings, and weights.
- Apply mathematical operations in the context of fishing, markets, and journeys.
- Read and interpret simple data tables.

Question Bank

Knowledge Questions (20)

1. How many zeroes are there in one lakh? **(Ans: 5)**
2. 1000 × 100 = ? **(Ans: 1,00,000)**
3. How many thousands make a lakh? **(Ans: 100)**
4. How many lakhs make a crore? **(Ans: 100)**
5. 10,000 × 10 = ? **(Ans: 1,00,000)**
6. Write one lakh in figures. **(Ans: 1,00,000)**
7. How many zeroes are there in 10 crore? **(Ans: 7)**
8. 50,000 + 50,000 = ? **(Ans: 1,00,000)**
9. 10,000 × 5 = ? **(Ans: 50,000)**
10. How many digits are there in 1 crore? **(Ans: 8)**
11. Write five lakh in numerals. **(Ans: 5,00,000)**
12. How many rupees make one lakh rupees? **(Ans: 1,00,000 rupees)**
13. Write one crore in numerals. **(Ans: 1,00,00,000)**
14. How many lakhs are there in 10 lakh? **(Ans: 10)**
15. 1 lakh = ____ × 10,000. **(Ans: 10)**

16. 1000 × 1000 = ? **(Ans: 10,00,000)**
17. Which is bigger: 10,000 or 1 lakh? **(Ans: 1 lakh)**
18. Which is bigger: 1 crore or 10 lakh? **(Ans: 1 crore)**
19. What is half of 1 lakh? **(Ans: 50,000)**
20. What is one-fourth of 1 lakh? **(Ans: 25,000)**

Comprehension Questions (20)

1. Why do fishermen go far into the sea? **(Ans: To catch more fish)**
2. Why do boats cost lakhs of rupees? **(Ans: Because they are big and strong)**
3. Why do people in coastal areas depend on fishing? **(Ans: For livelihood and food)**
4. Why do big boats need large crews? **(Ans: To catch and manage large quantities of fish)**
5. Why do we use lakhs and crores instead of writing so many zeroes? **(Ans: To write big numbers easily)**
6. How can you quickly estimate cost of many fish? **(Ans: Multiply price × number)**
7. Why is sharing profit important among fishermen? **(Ans: Everyone worked together)**
8. Why do we use multiplication in fish markets? **(Ans: To calculate total price quickly)**
9. Why do fishermen divide their earnings equally? **(Ans: For fairness)**
10. Why do boats have storage boxes? **(Ans: To keep fish fresh)**
11. If one fish weighs 2 kg, how can we find weight of 10 fish? **(Ans: Multiply 2 × 10 = 20 kg)**
12. Which is cheaper: 5 fish at ₹200 each or 10 fish at ₹100 each? **(Ans: Both = ₹1000, equal)**
13. If each fisherman gets ₹200, and there are 20 fishermen, how much total? **(Ans: ₹4000)**
14. Why do we divide fish into boxes? **(Ans: Easy to carry and sell)**

15. Which is bigger: 25,000 or 2 lakh? **(Ans: 2 lakh)**
16. Why do fishermen estimate before selling? **(Ans: To guess earnings)**
17. Why do big boats earn more money? **(Ans: Catch more fish)**
18. Which is larger: 7 lakh or 70,000? **(Ans: 7 lakh)**
19. Which is smaller: 1 crore or 10 lakh? **(Ans: 10 lakh)**
20. Why do boats need petrol? **(Ans: To run engines in sea)**

Application Questions (20)

1. One big boat costs ₹2,00,000. How much for 5 boats? **(Ans: ₹10,00,000)**
2. One box has 100 fish. How many in 10 boxes? **(Ans: 1000 fish)**
3. Each fish costs ₹250. Find cost of 12 fish. **(Ans: ₹3000)**
4. A fisherman earns ₹300 per day. Find earnings in 10 days. **(Ans: ₹3000)**
5. A crew catches 500 fish. If each sold at ₹50, total money? **(Ans: ₹25,000)**
6. If petrol for a boat costs ₹2000 and 5 trips are made, cost? **(Ans: ₹10,000)**
7. 12 fishermen share ₹6000 equally. Each gets? **(Ans: ₹500)**
8. A small boat costs ₹50,000. How much for 8 boats? **(Ans: ₹4,00,000)**
9. A fisherman spends ₹8000 on nets and ₹2000 on fuel. Total cost? **(Ans: ₹10,000)**
10. A fisherman sells 120 fish at ₹80 each. Total? **(Ans: ₹9600)**
11. If 1 boat catches 200 kg fish, how much for 4 boats? **(Ans: 800 kg)**
12. A crew caught 350 fish, sold each at ₹150. Total money? **(Ans: ₹52,500)**
13. If a box holds 50 kg fish, how many boxes for 500 kg? **(Ans: 10 boxes)**
14. If 10 fishermen get ₹12,000, how much each? **(Ans: ₹1200)**
15. A fisherman catches 25 fish daily. How many in 30 days? **(Ans: 750)**
16. A fisherman earns ₹9000 monthly. How much in a year? **(Ans: ₹1,08,000)**
17. If a big boat catches 300 fish and small boat 150 fish, how many more? **(Ans: 150)**
18. A fisherman sold fish for ₹40,000, expenses ₹10,000. Profit? **(Ans: ₹30,000)**

19. If petrol costs ₹100 per litre and boat uses 25 litres, cost? **(Ans: ₹2500)**
20. A group bought a boat for ₹6,00,000. If 12 share equally, how much each pays? **(Ans: ₹50,000)**

Skill-Based Questions with Figures (20)

Use drawings of boats, fish, boxes, money notes.

1. Draw 1 fish, then 10 fish. Write total = 10.
2. Draw 1 boat = ₹50,000. Draw 2 boats. Write total. **(Ans: ₹1,00,000)**
3. Draw a box with 50 fish. Draw 2 boxes. Total = ? **(Ans: 100 fish)**
4. Draw 4 notes of ₹1000. Total = ? **(Ans: ₹4000)**
5. Draw 5 fishes, each weighing 2 kg. Total? **(Ans: 10 kg)**
6. Draw a boat with 3 fishermen. How many if 4 boats? **(Ans: 12)**
7. Draw a bag with 100 coins. How many in 5 bags? **(Ans: 500)**
8. Draw 1 big boat = ₹2,00,000. How many boats for ₹10,00,000? **(Ans: 5 boats)**
9. Draw a petrol can = 10 litres. Show cost if ₹100/litre. **(Ans: ₹1000)**
10. Draw 1 box = 20 kg fish. Draw 5 boxes. **(Ans: 100 kg)**
11. Draw 4 fishes sold at ₹50 each. Write total. **(Ans: ₹200)**
12. Draw 6 fishermen sharing ₹600. How much each? **(Ans: ₹100)**
13. Draw 1 coin of ₹10. Show 10 such coins. Total? **(Ans: ₹100)**
14. Draw 2 boats with 50 fish each. Total fish? **(Ans: 100)**
15. Draw 4 nets with 25 fish each. Total fish? **(Ans: 100)**
16. Draw 3 petrol cans, each 20 litres. Total? **(Ans: 60 litres)**
17. Draw 1 note ₹500. Show 8 notes. Total? **(Ans: ₹4000)**
18. Draw 5 baskets of fish, each 10 kg. Total? **(Ans: 50 kg)**
19. Draw 3 fishermen selling 40 fish each. Total? **(Ans: 120 fish)**
20. Draw 2 boats, one with 300 fish, one with 150 fish. Difference? **(Ans: 150)**

Blueprint — Lesson 1: The Fish Tale

Objective	No. of Q	Marks	Difficulty Level
Knowledge	4	4	3 Easy, 1 Medium
Comprehension	3	4	2 Easy, 1 Medium
Application	2	5	1 Medium, 1 Hard
Skill (Figures)	1	2	1 Easy
TOTAL	**10**	**15**	**Easy 50% · Medium 35% · Hard 15%**

Model Question Paper – Lesson 1: The Fish Tale

Class: 5 **Subject:** Mathematics
Max Marks: 15 **Time:** 30 minutes

Section A — Knowledge (4 × 1 = 4)

1. How many zeroes are there in 1 lakh? **(Ans: 5)**
2. Write one crore in figures. **(Ans: 1,00,00,000)**
3. Which is bigger: 1 crore or 10 lakh? **(Ans: 1 crore)**
4. What is half of 1 lakh? **(Ans: 50,000)**

Section B — Comprehension (3 × 1⅓ = 4)

5. Why do fishermen go far into the sea?
   Ans: To catch more fish.
6. If 2 fish weigh 2 kg each, what is total weight?
   Ans: 4 kg.
7. Why do big boats earn more money?
   Ans: They catch more fish.

Section C — Application (2 × 2.5 = 5)

8. A fisherman sells 120 fish at ₹80 each. Find total money.
   Ans: ₹9600.
9. A boat costs ₹6,00,000. If 12 people share equally, how much each pays?
   Ans: ₹50,000.

Section D — Skill (1 × 2 = 2)

10. Draw a box of 50 fish. Draw 4 such boxes.

- How many fish in total? **Ans: 200 fish**

Lesson 2: Shapes and Angles

Learning Outcomes

By the end of this lesson, children will be able to:

- Identify and name basic 2-D shapes (triangle, square, rectangle, pentagon, hexagon).
- Recognise and compare angles (right, acute, obtuse, straight, reflex).
- Understand the properties of shapes (sides, corners, angles).
- Estimate, draw, and measure angles using simple tools.
- Apply angle and shape knowledge in real-life contexts (doors, tiles, scissors, clocks).

Question Bank

Knowledge Questions (20)

1. How many sides does a triangle have? **(Ans: 3)**
2. How many sides does a rectangle have? **(Ans: 4)**
3. How many corners does a square have? **(Ans: 4)**
4. How many sides does a pentagon have? **(Ans: 5)**
5. How many sides does a hexagon have? **(Ans: 6)**
6. What is an angle? **(Ans: Space between two lines meeting at a point)**
7. Name the angle that looks like the corner of a book. **(Ans: Right angle)**
8. Angle less than a right angle is called? **(Ans: Acute angle)**
9. Angle greater than a right angle but less than a straight line is called? **(Ans: Obtuse angle)**
10. What do we call an angle equal to 180°? **(Ans: Straight angle)**
11. Which angle is smaller than a right angle? **(Ans: Acute)**
12. Which angle is larger than a right angle? **(Ans: Obtuse)**
13. How many right angles in a rectangle? **(Ans: 4)**
14. How many right angles in a square? **(Ans: 4)**
15. How many right angles in a triangle? **(Ans: 1 or 0, depending on type)**
16. A clock shows 3 o'clock. What angle between hands? **(Ans: Right angle, 90°)**

17. A clock shows 6 o'clock. What angle between hands? **(Ans: Straight angle, 180°)**
18. How many corners does a triangle have? **(Ans: 3)**
19. How many corners does a hexagon have? **(Ans: 6)**
20. Which shape has all sides equal and all right angles? **(Ans: Square)**

Comprehension Questions (20)

1. Why does a square have 4 right angles? **(Ans: All sides meet at right angles)**
2. Why is a rectangle different from a square? **(Ans: Rectangle has equal opposite sides, square has all equal)**
3. Which shape has more sides: pentagon or hexagon? **(Ans: Hexagon)**
4. Why is a triangle the simplest polygon? **(Ans: Smallest with 3 sides)**
5. Why do doors and windows have right angles? **(Ans: Fit properly, stable design)**
6. Why is an acute angle smaller than right angle? **(Ans: Less than 90°)**
7. Why is an obtuse angle larger than right angle? **(Ans: More than 90°)**
8. Which angle is bigger: 120° or 90°? **(Ans: 120°)**
9. Which angle is smaller: 45° or 90°? **(Ans: 45°)**
10. Why do we call 180° a straight angle? **(Ans: Line looks straight)**
11. Why does a clock at 12:00 show 0° angle? **(Ans: Hands overlap)**
12. Why does a clock at 9:00 show right angle? **(Ans: Hands form 90°)**
13. Which shape has equal sides but no right angle? **(Ans: Rhombus)**
14. Why is a circle not a polygon? **(Ans: No straight sides)**
15. Why is symmetry important in shapes? **(Ans: Makes them balanced and neat)**
16. How many angles in a triangle? **(Ans: 3)**
17. How many angles in a square? **(Ans: 4)**
18. Why does a triangle always have 3 angles? **(Ans: 3 sides make 3 corners)**

19. Why is a straight angle also called half-turn? **(Ans: Line rotates halfway)**
20. Why is a reflex angle bigger than 180°? **(Ans: Goes beyond straight line)**

Application Questions (20)

1. Draw a square. How many right angles? **(Ans: 4)**
2. Draw a rectangle. How many right angles? **(Ans: 4)**
3. Draw a triangle with 1 right angle. **(Ans: Right-angled triangle)**
4. Draw a triangle with all sides equal. **(Ans: Equilateral)**
5. Draw a clock at 3 o'clock. What angle? **(Ans: Right angle)**
6. Draw a clock at 6 o'clock. What angle? **(Ans: Straight angle)**
7. Draw a clock at 9 o'clock. What angle? **(Ans: Right angle)**
8. Draw a clock at 12 o'clock. What angle? **(Ans: Zero angle)**
9. A book is open flat. What angle between covers? **(Ans: Straight, 180°)**
10. A scissors open wide. What angle? **(Ans: Obtuse)**
11. A scissors closed. What angle? **(Ans: Zero angle)**
12. Which has bigger angle: open door or closed door? **(Ans: Open door)**
13. Write angles in word: 30° = ? **(Ans: Acute)**
14. Write angles in word: 90° = ? **(Ans: Right)**
15. Write angles in word: 150° = ? **(Ans: Obtuse)**
16. Write angles in word: 180° = ? **(Ans: Straight)**
17. Write angles in word: 270° = ? **(Ans: Reflex)**
18. Write angles in word: 360° = ? **(Ans: Full turn)**
19. A kite has 4 sides. Which shape? **(Ans: Quadrilateral)**
20. A hexagon has 6 angles. Draw it.

Skill-Based Questions with Figures (20)

Use drawings of shapes, clocks, doors, scissors for child-friendly questions.

1. Draw a triangle. Mark angles A, B, C.
2. Draw a square. Show all right angles.
3. Draw a rectangle. Show 2 equal long sides.
4. Draw a hexagon. Count sides.
5. Draw a pentagon. Count angles.
6. Draw a rhombus. Mark equal sides.
7. Draw a circle. Mark centre.
8. Draw a clock at 3:00. Mark angle.
9. Draw a clock at 6:00. Mark angle.
10. Draw a clock at 9:00. Mark angle.
11. Draw a door half open. What angle? **(Ans: Acute/Obtuse depending on drawing)**
12. Draw a book fully open. Angle? **(Ans: 180°)**
13. Draw a fan blade. Mark angle of rotation.
14. Draw a pizza slice. What angle? **(Ans: Acute)**
15. Draw 4 triangles: equilateral, isosceles, scalene, right.
16. Draw a square and fold diagonally. What shape? **(Ans: Triangle)**
17. Draw 2 intersecting lines. Mark angle.
18. Draw a straight line. Show straight angle.
19. Draw 2 parallel lines cut by a transversal. Mark angles.
20. Draw a wheel. Mark angles at 90°, 180°, 270°.

Blueprint — Lesson 2: Shapes and Angles

Objective	No. of Q	Marks	Difficulty Level

Objective	No. of Q	Marks	Difficulty Level
Knowledge	4	4	3 Easy, 1 Medium
Comprehension	3	3	2 Easy, 1 Medium
Application	2	5	1 Medium, 1 Hard
Skill (Figures)	1	3	1 Medium
TOTAL	**10**	**15**	**Easy 45% · Medium 40% · Hard 15%**

Model Question Paper – Lesson 2: Shapes and Angles

Class: 5 **Subject:** Mathematics
Max Marks: 15 **Time:** 30 minutes

Section A — Knowledge (4 × 1 = 4)

1. How many sides does a pentagon have? **(Ans: 5)**
2. An angle equal to 90° is called? **(Ans: Right angle)**
3. Which has more corners: triangle or square? **(Ans: Square)**
4. A clock shows 6:00. What angle between hands? **(Ans: Straight angle, 180°)**

Section B — Comprehension (3 × 1 = 3)

5. Why does a rectangle have 4 right angles?
   Ans: Because its sides meet at 90° each.
6. Which angle is smaller: 45° or 90°?
   Ans: 45°, acute angle.
7. Why is a circle not a polygon?
   Ans: It has no straight sides.

Section C — Application (2 × 2.5 = 5)

8. Draw a clock showing 3:00. What angle between hands?
   Ans: Right angle, 90°.
9. A scissors open to 120°. Which angle is it?
   Ans: Obtuse angle.

Section D — Skill (1 × 3 = 3)

10. Draw a triangle with one right angle.

- How many sides does it have? **Ans: 3**
- How many corners? **Ans: 3**
- How many right angles? **Ans: 1**

Lesson 3: How Many Squares?

Learning Outcomes

By the end of this lesson, children will be able to:

- Recognise square units as a measure of area.
- Count squares to find the area of simple and irregular shapes.
- Distinguish between area and perimeter.
- Apply multiplication to find area of rectangles and squares.
- Estimate and compare areas of different shapes.

Question Bank

Knowledge Questions (20)

1. What is the area of a 1×1 square? **(Ans: 1 sq unit)**
2. How many square units in a 2×2 square? **(Ans: 4)**
3. Area of 3×3 square? **(Ans: 9 sq units)**
4. Area of 4×4 square? **(Ans: 16 sq units)**
5. Area of 5×5 square? **(Ans: 25 sq units)**
6. Area of 10×10 square? **(Ans: 100 sq units)**
7. Area of rectangle = ? **(Ans: Length × Breadth)**
8. Area of square = ? **(Ans: Side × Side)**
9. What is perimeter? **(Ans: Distance around shape)**
10. Area of rectangle 6×2? **(Ans: 12 sq units)**
11. Area of square with side 8? **(Ans: 64 sq units)**
12. Which is bigger: area of 4×3 rectangle or 3×3 square? **(Ans: 12 vs 9 → rectangle bigger)**
13. Which is bigger: 5×5 square or 6×4 rectangle? **(Ans: 25 vs 24 → square bigger)**
14. Which is bigger: 10×2 rectangle or 6×3 rectangle? **(Ans: 20 vs 18 → first bigger)**
15. Area of rectangle with L=7, B=2? **(Ans: 14 sq units)**
16. Area of square side 9? **(Ans: 81 sq units)**

17. Area of square side 12? **(Ans: 144 sq units)**
18. Which has more area: 8×2 rectangle or 5×3 rectangle? **(Ans: 16 vs 15 → first bigger)**
19. What is the unit of area? **(Ans: Square units)**
20. Perimeter of square side 4? **(Ans: 16 units)**

Comprehension Questions (20)

1. Why do we use squares to measure area? **(Ans: Easy equal units)**
2. Why is 2×2 square bigger than 1×1 square? **(Ans: Covers more space)**
3. Why does area increase with bigger sides? **(Ans: More space covered)**
4. Why is perimeter different from area? **(Ans: Perimeter = boundary, area = inside)**
5. Why is a 10×1 rectangle area 10 but perimeter 22? **(Ans: Perimeter counts all sides)**
6. Which is larger in area: 4×4 or 8×2? **(Ans: 16 vs 16 → equal)**
7. Why is a square called a special rectangle? **(Ans: Equal sides)**
8. Why does doubling sides make area 4 times bigger? **(Ans: Side^2 formula)**
9. Why is a 5×2 rectangle area smaller than 5×5 square? **(Ans: 10 vs 25)**
10. Which shape has more area: square side 6 or rectangle 7×5? **(Ans: 36 vs 35 → square)**
11. Why are fields measured in sq metres? **(Ans: For area)**
12. Why are plots measured in acres/hectares? **(Ans: Large areas)**
13. Why do we use graph paper for area? **(Ans: Count small squares)**
14. If 1 sq = 1 cm^2, how many in 2×3 rectangle? **(Ans: 6)**
15. Why is a square the best shape for fencing minimum boundary? **(Ans: Least perimeter)**
16. Why does 3×4 rectangle have same area as 2×6 rectangle? **(Ans: Both 12)**
17. Which covers more space: 10×1 or 5×2? **(Ans: 10 vs 10 → equal)**
18. Why do we write area in square units? **(Ans: Both sides multiplied)**

19. Which is smaller: 2×2 or 3×1 rectangle? **(Ans: 4 vs 3 → 3×1 smaller)**
20. Why do farmers like square plots? **(Ans: Easier fencing)**

Application Questions (20)

1. Find area: 12×3 rectangle. **(Ans: 36 sq units)**
2. Find area: 9×9 square. **(Ans: 81 sq units)**
3. A rectangle L=20, B=15. Find area. **(Ans: 300 sq units)**
4. A square side 15. Area = ? **(Ans: 225 sq units)**
5. A tile 2×2. Floor is 10×10. How many tiles? **(Ans: 25)**
6. A hall 30×20. How many sq m? **(Ans: 600 sq m)**
7. A garden 50×40. Area? **(Ans: 2000 sq m)**
8. A field 100×50. Area? **(Ans: 5000 sq m)**
9. A plot 25×25. Area? **(Ans: 625 sq m)**
10. A school ground 80×50. Area? **(Ans: 4000 sq m)**
11. A blackboard 2×1. Area? **(Ans: 2 sq m)**
12. A table top 4×3. Area? **(Ans: 12 sq units)**
13. A room 10×8. Area? **(Ans: 80 sq units)**
14. A card 12×10. Area? **(Ans: 120 sq units)**
15. A park 40×25. Area? **(Ans: 1000 sq m)**
16. How many 1×1 squares in 7×5 rectangle? **(Ans: 35)**
17. How many 1×1 squares in 9×8 rectangle? **(Ans: 72)**
18. How many 1×1 squares in 12×6 rectangle? **(Ans: 72)**
19. A square field side 50 m. Area? **(Ans: 2500 m^2)**
20. A rectangular room 15×12 m. Area? **(Ans: 180 m^2)**

Skill-Based Questions with Figures (20)

Use grid drawings and shaded squares.

1. Draw a 3×3 square grid. Shade 4 squares. What fraction? **(Ans: 4/9)**

2. Draw a 4×4 square grid. Shade 8 squares. Area? **(Ans: 8 sq units)**
3. Draw a rectangle 5×2. Count squares. **(Ans: 10)**
4. Draw a rectangle 6×3. Count squares. **(Ans: 18)**
5. Draw an irregular figure on 5×5 grid. Count shaded.
6. Draw 2 shapes same area, different perimeter.
7. Draw a square 4×4. Shade half. **(Ans: 8 sq units)**
8. Draw a square 6×6. Shade quarter. **(Ans: 9 sq units)**
9. Draw a rectangle 5×5. Shade 15. **(Ans: 15 sq units)**
10. Draw 3 rectangles with area 12. **(Ans: 3×4, 2×6, 1×12)**
11. Draw a square side 5. Show 25 small squares.
12. Draw a floor of 10×10. Shade tiles for ¼ area. **(Ans: 25 sq units)**
13. Draw 8×2 rectangle. Mark area. **(Ans: 16)**
14. Draw 7×7 square. Shade 21. Fraction? **(Ans: 3/7)**
15. Draw shape with area 10 sq units.
16. Draw shape with perimeter 12, area 9.
17. Draw 5×3 rectangle. Count. **(Ans: 15)**
18. Draw shape covering ½ of 16 sq unit square. **(Ans: 8)**
19. Draw shape with area 20 sq units.
20. Draw 2 irregular shapes, same area.

Blueprint — Lesson 3: How Many Squares?

Objective	No. of Q	Marks	Difficulty Level
Knowledge	4	4	3 Easy, 1 Medium

Objective	No. of Q	Marks	Difficulty Level
Comprehension	3	3	2 Easy, 1 Medium
Application	2	5	1 Medium, 1 Hard
Skill (Figures)	1	3	1 Medium
TOTAL	**10**	**15**	**Easy 45% · Medium 40% · Hard 15%**

Model Question Paper – Lesson 3: How Many Squares?

Class: 5 **Subject:** Mathematics
Max Marks: 15 **Time:** 30 minutes

Section A — Knowledge (4 × 1 = 4)

1. Area of 3×3 square? **(Ans: 9 sq units)**
2. Area of rectangle = ? **(Ans: L × B)**
3. Perimeter of square side 5? **(Ans: 20 units)**
4. Area of rectangle 6×2? **(Ans: 12 sq units)**

Section B — Comprehension (3 × 1 = 3)

5. Why do we use square units for area?
   Ans: To cover space equally.
6. Which has bigger area: 4×3 rectangle or 3×3 square?
   Ans: 12 vs 9 → rectangle bigger.
7. Why is perimeter different from area?
   Ans: Perimeter measures boundary, area measures space inside.

Section C — Application (2 × 2.5 = 5)

8. A rectangle L=20, B=15. Find area.
   Ans: 300 sq units.
9. A square plot side 25 m. Find area.
   Ans: 625 m².

Section D — Skill (1 × 3 = 3)

10. Draw a 4×4 square grid. Shade 8 squares.

- Total area = ? **Ans: 16 sq units**
- Shaded area = ? **Ans: 8 sq units**

Lesson 4: Parts and Wholes

Learning Outcomes

By the end of this lesson, children will be able to:

- Understand fractions as equal parts of a whole.
- Represent halves, quarters, thirds, and other simple fractions with pictures.
- Compare fractions using real-life contexts (food, money, sharing).
- Add and subtract simple fractions with like denominators.
- Apply fractions to solve daily-life problems.

Question Bank

Knowledge Questions (20)

1. What is half written as? **(Ans: ½)**
2. What is quarter written as? **(Ans: ¼)**
3. What is three quarters written as? **(Ans: ¾)**
4. 2/2 = ? **(Ans: 1 whole)**
5. 4/4 = ? **(Ans: 1 whole)**
6. 1/2 of 10 = ? **(Ans: 5)**
7. 1/4 of 12 = ? **(Ans: 3)**
8. 1/3 of 9 = ? **(Ans: 3)**
9. 2/4 = ? **(Ans: ½)**
10. 3/6 = ? **(Ans: ½)**
11. Which is bigger: ½ or ¼? **(Ans: ½)**
12. Which is smaller: ⅓ or ½? **(Ans: ⅓)**
13. ½ of 100 = ? **(Ans: 50)**
14. ¼ of 100 = ? **(Ans: 25)**
15. ¾ of 100 = ? **(Ans: 75)**
16. ½ of 1 litre = ? **(Ans: 500 ml)**
17. ¼ of 1 metre = ? **(Ans: 25 cm)**
18. ½ of ₹10 = ? **(Ans: ₹5)**
19. ¼ of ₹20 = ? **(Ans: ₹5)**

20. ¾ of ₹100 = ? **(Ans: ₹75)**

Comprehension Questions (20)

1. Why do we cut shapes into equal parts for fractions? **(Ans: Fractions need equal parts)**
2. If you cut a roti into 2 equal parts, what is each called? **(Ans: Half)**
3. If you cut a roti into 4 equal parts, what is each called? **(Ans: Quarter)**
4. Why is ½ bigger than ¼? **(Ans: Half covers more area than quarter)**
5. If 2 friends share 1 chocolate equally, what does each get? **(Ans: ½)**
6. If 4 friends share 1 chocolate equally, what does each get? **(Ans: ¼)**
7. Why is ¾ more than ½? **(Ans: ¾ has 3 parts, ½ only 2 parts of same whole)**
8. Which is more: 2/4 or ½? **(Ans: Equal)**
9. Why do we write numerator and denominator in fractions? **(Ans: Numerator = part taken, denominator = total parts)**
10. If you eat 2 out of 4 pieces, what fraction eaten? **(Ans: ½)**
11. If you eat 3 out of 4 pieces, what fraction eaten? **(Ans: ¾)**
12. Which is more: ¼ of 12 or ½ of 12? **(Ans: 6 vs 3 → ½ is more)**
13. Why do fractions help in sharing things equally? **(Ans: Fair division)**
14. How many quarters in 1 whole? **(Ans: 4)**
15. How many halves in 2 wholes? **(Ans: 4)**
16. If a rupee = 100 paise, what fraction is 25 paise? **(Ans: ¼)**
17. What fraction of 60 minutes is 15 minutes? **(Ans: ¼)**
18. What fraction of 60 minutes is 30 minutes? **(Ans: ½)**
19. Which is smaller: 1/10 or 1/5? **(Ans: 1/10)**
20. Why is 100/100 = 1 whole? **(Ans: All parts together make one)**

Application Questions (20)

1. Half of 24 mangoes = ? **(Ans: 12)**
2. Quarter of 20 pencils = ? **(Ans: 5)**

3. Third of 18 chocolates = ? **(Ans: 6)**
4. ¾ of 16 apples = ? **(Ans: 12)**
5. A tank has 100 litres. Half full = ? **(Ans: 50 L)**
6. A tank has 100 litres. Quarter full = ? **(Ans: 25 L)**
7. A tank has 100 litres. Three-quarters full = ? **(Ans: 75 L)**
8. A pizza cut into 8 slices. Eat 4 slices. Fraction eaten? **(Ans: ½)**
9. A pizza cut into 8 slices. Eat 6 slices. Fraction eaten? **(Ans: ¾)**
10. A chocolate bar with 12 pieces. Eat 3. Fraction eaten? **(Ans: ¼)**
11. A chocolate bar with 12 pieces. Eat 6. Fraction eaten? **(Ans: ½)**
12. A chocolate bar with 12 pieces. Eat 9. Fraction eaten? **(Ans: ¾)**
13. Half of ₹200 = ? **(Ans: ₹100)**
14. Quarter of ₹200 = ? **(Ans: ₹50)**
15. ¾ of ₹200 = ? **(Ans: ₹150)**
16. If 2/4 = ½, then 2/8 = ? **(Ans: ¼)**
17. If 3/6 = ½, then 4/8 = ? **(Ans: ½)**
18. If 2/10 = ? **(Ans: 1/5)**
19. Which is bigger: ¾ of 80 or ½ of 80? **(Ans: 60 vs 40 → ¾ bigger)**
20. Which is smaller: ¼ of 40 or ½ of 40? **(Ans: 10 vs 20 → ¼ smaller)**

Skill-Based Questions with Figures (20)

Use pizzas, rotis, chocolates, coins, grids for drawings.

1. Draw a circle. Shade half. **(Ans: ½)**
2. Draw a circle. Shade quarter. **(Ans: ¼)**
3. Draw a circle. Shade three-quarters. **(Ans: ¾)**
4. Draw a rectangle divided into 2 equal parts. Shade 1. **(Ans: ½)**
5. Draw a rectangle divided into 4 equal parts. Shade 2. **(Ans: ½)**
6. Draw a square divided into 4 equal parts. Shade 3. **(Ans: ¾)**

7. Draw a chocolate bar with 8 pieces. Shade 2. **(Ans: ¼)**
8. Draw a chocolate bar with 8 pieces. Shade 4. **(Ans: ½)**
9. Draw a chocolate bar with 8 pieces. Shade 6. **(Ans: ¾)**
10. Draw a pizza cut into 6 slices. Shade 2. **(Ans: ⅓)**
11. Draw a pizza cut into 6 slices. Shade 4. **(Ans: ⅔)**
12. Draw 4 coins. Shade 1. **(Ans: ¼)**
13. Draw 4 coins. Shade 2. **(Ans: ½)**
14. Draw 4 coins. Shade 3. **(Ans: ¾)**
15. Draw a roti cut into 2. Shade 1. **(Ans: ½)**
16. Draw a roti cut into 4. Shade 1. **(Ans: ¼)**
17. Draw a roti cut into 4. Shade 3. **(Ans: ¾)**
18. Draw a 10-block strip. Shade 5. **(Ans: ½)**
19. Draw a 10-block strip. Shade 2. **(Ans: 1/5)**
20. Draw a 10-block strip. Shade 7. **(Ans: 7/10)**

Blueprint — Lesson 4: Parts and Wholes

Objective	No. of Q	Marks	Difficulty Level
Knowledge	3	3	2 Easy, 1 Medium

Objective	No. of Q	Marks	Difficulty Level
Comprehension	2	3	1 Easy, 1 Medium
Application	3	6	1 Easy, 1 Medium, 1 Hard
Skill (Figures)	2	3	2 Easy
TOTAL	**10**	**15**	**Easy 45% · Medium 35% · Hard 20%**

Model Question Paper – Lesson 4: Parts and Wholes

Class: 5 **Subject:** Mathematics
Max Marks: 15 **Time:** 30 minutes

Section A — Knowledge (3 × 1 = 3)

1. What is half written as? **(Ans: ½)**
2. How many quarters make 1 whole? **(Ans: 4)**
3. ¼ of 100 = ? **(Ans: 25)**

Section B — Comprehension (2 × 1.5 = 3)

4. Why is ½ bigger than ¼?
   Ans: Half covers more part than quarter.
5. If you eat 3 out of 4 parts of a roti, what fraction eaten?
   Ans: ¾

Section C — Application (3 × 2 = 6)

6. Half of ₹200 = ?
   Ans: ₹100
7. A chocolate bar has 12 pieces. You eat 6. What fraction eaten?
   Ans: ½
8. Which is bigger: ¾ of 80 or ½ of 80?
   Ans: 60 vs 40 → ¾ is bigger

Section D — Skill (2 × 1.5 = 3)

9. Draw a circle. Divide into 4 equal parts. Shade 1.
   - What fraction is shaded? **Ans: ¼**
10. Draw a rectangle divided into 2 parts. Shade 1.

- What fraction is shaded? **Ans: ½**

Lesson 5: Does it Look the Same?

Learning Outcomes

By the end of this lesson, children will be able to:

- Identify lines of symmetry in simple shapes.
- Recognise mirror images of letters, numbers, and objects.
- Understand that shapes can look the same after reflection, rotation, or folding.
- Apply symmetry to real-life objects like rangoli, designs, alphabets, and kites.
- Create their own symmetrical patterns.

Question Bank

Knowledge Questions (20)

1. What is symmetry? **(Ans: When two halves are equal and same)**
2. What is a mirror image? **(Ans: Reflection of an object in a mirror)**
3. Which English letter has 1 line of symmetry: A, B, C? **(Ans: A)**
4. Which English letter has 2 lines of symmetry: H, T, P? **(Ans: H)**
5. Which English letter has no symmetry: Q, X, Z? **(Ans: Z)**
6. Which digit has 1 line of symmetry: 8, 7, 3? **(Ans: 8)**
7. Which digit has vertical symmetry: 1, 2, 3? **(Ans: 1)**
8. Which digit has both vertical and horizontal symmetry? **(Ans: 8)**
9. Which shape has 4 lines of symmetry? **(Ans: Square)**
10. Which shape has 2 lines of symmetry? **(Ans: Rectangle)**
11. Which shape has infinite lines of symmetry? **(Ans: Circle)**
12. Which shape has no line of symmetry: scalene triangle, equilateral triangle? **(Ans: Scalene triangle)**
13. How many lines of symmetry in an equilateral triangle? **(Ans: 3)**
14. How many lines of symmetry in an isosceles triangle? **(Ans: 1)**
15. Which alphabet looks same in mirror: O or N? **(Ans: O)**
16. Which digit looks same in mirror: 5 or 8? **(Ans: 8)**
17. Which object is symmetrical: kite or irregular stone? **(Ans: Kite)**
18. Which has more symmetry: square or rectangle? **(Ans: Square)**

19. Which is symmetrical: butterfly or elephant? **(Ans: Butterfly)**
20. Which is symmetrical: flower or leaf? **(Ans: Both can be symmetrical)**

Comprehension Questions (20)

1. Why do we say square has 4 lines of symmetry? **(Ans: It folds evenly on 4 axes)**
2. Why does rectangle have 2 lines of symmetry, not 4? **(Ans: Only vertical and horizontal work)**
3. Why is a circle said to have infinite lines of symmetry? **(Ans: Can fold along any diameter)**
4. Why does scalene triangle have no symmetry? **(Ans: All sides and angles different)**
5. Why do butterflies look symmetrical? **(Ans: Left wing = right wing)**
6. Which letters look the same in mirror? **(Ans: A, H, I, M, O, T, U, V, W, X, Y)**
7. Which numbers look the same in mirror? **(Ans: 0, 1, 8)**
8. Why do we use symmetry in rangoli? **(Ans: To make beautiful balanced designs)**
9. Why do kites look symmetrical? **(Ans: Folded along centre line, both halves same)**
10. Why do alphabets like B or D not have mirror symmetry? **(Ans: Their halves are unequal)**
11. Why does 8 have both horizontal and vertical symmetry? **(Ans: Same in both directions)**
12. Which looks symmetrical: human face or hand? **(Ans: Face)**
13. Which has more symmetry: square or hexagon? **(Ans: Hexagon – 6 lines)**
14. Why do flowers look symmetrical? **(Ans: Petals arranged equally)**
15. Which part of rangoli shows symmetry? **(Ans: Each side repeats same pattern)**
16. Why do trucks sometimes write “STOP” in mirror form? **(Ans: To be read in mirrors of vehicles ahead)**
17. Which daily objects show symmetry? **(Ans: Glass, window, scissors, ball)**

18. Which numbers between 0–9 are symmetrical? **(Ans: 0, 1, 3, 8 vertically or horizontally)**
19. Why do designers use symmetry in logos? **(Ans: Easy recognition)**
20. Why are symmetrical shapes more attractive? **(Ans: Balanced and neat)**

Application Questions (20)

1. Draw a square. Show 4 lines of symmetry.
2. Draw a rectangle. Show 2 lines of symmetry.
3. Draw a circle. Show 6 diameters as lines of symmetry.
4. Draw an equilateral triangle. Show 3 lines of symmetry.
5. Draw an isosceles triangle. Show 1 line of symmetry.
6. Draw a kite. Show 1 line of symmetry.
7. Draw a butterfly. Mark line of symmetry.
8. Draw a rangoli pattern with 2 lines of symmetry.
9. Write “WOW”. Show mirror line.
10. Write “MOM”. Show mirror line.
11. Write “TOY”. Check mirror symmetry.
12. Draw digit 8. Show both lines of symmetry.
13. Draw digit 0. Show infinite diameters.
14. Draw digit 3. Does it have symmetry? **(Ans: No vertical/horizontal symmetry)**
15. Draw digit 1. Show vertical symmetry.
16. Draw leaf. Fold to check line of symmetry.
17. Draw human face. Mark line of symmetry.
18. Draw clock at 6:00. Does it show symmetry? **(Ans: Yes, vertical line)**
19. Draw a flower with 6 petals. Show symmetry.
20. Draw a rangoli with square grid. Shade symmetrically.

Skill-Based Questions with Figures (20)

Use shapes, alphabets, rangoli, butterflies.

1. Draw A. Mark vertical symmetry.
2. Draw H. Mark 2 lines of symmetry.
3. Draw O. Mark many lines of symmetry.
4. Draw Z. Does it have symmetry? **(Ans: No)**
5. Draw 8. Show vertical and horizontal symmetry.
6. Draw 0. Show diameter as symmetry.
7. Draw butterfly wings. Fold to check.
8. Draw human face. Mark middle line.
9. Draw star. Show 5 lines of symmetry.
10. Draw hexagon. Show 6 lines of symmetry.
11. Draw square. Shade halves equally.
12. Draw rectangle. Shade halves equally.
13. Draw flower with 4 petals. Show symmetry.
14. Draw rangoli with 8 dots. Make symmetric pattern.
15. Draw flag. Fold to see symmetry.
16. Draw heart shape. Show line of symmetry.
17. Draw scissors. Check symmetry.
18. Draw car front. Mark symmetry.
19. Draw clock at 12:00. Show symmetry.
20. Draw rangoli with mirror reflection.

Blueprint — Lesson 5: Does it Look the Same?

Objective	No. of Q	Marks	Difficulty Level
Knowledge	3	3	2 Easy, 1 Medium
Comprehension	3	4	2 Easy, 1 Medium

Objective	No. of Q	Marks	Difficulty Level
Application	2	4	1 Medium, 1 Hard
Skill (Figures)	2	4	1 Easy, 1 Medium
TOTAL	**10**	**15**	**Easy 45% · Medium 40% · Hard 15%**

Model Question Paper – Lesson 5: Does it Look the Same?

Class: 5 **Subject:** Mathematics
Max Marks: 15 **Time:** 30 minutes

Section A — Knowledge (3 × 1 = 3)

1. Which shape has 4 lines of symmetry? **(Ans: Square)**
2. Which digit has both vertical and horizontal symmetry? **(Ans: 8)**
3. Which letter has no line of symmetry: Z or X? **(Ans: Z)**

Section B — Comprehension (3 × 1⅓ = 4)

4. Why is a circle said to have infinite lines of symmetry?
   Ans: Any diameter divides it equally.
5. Why do butterflies look symmetrical?
   Ans: Left and right wings are same.
6. Which letters look same in mirror?
   Ans: A, H, I, M, O, T, U, V, W, X, Y.

Section C — Application (2 × 2 = 4)

7. Draw a square. Show 4 lines of symmetry.
   Ans: Vertical, horizontal, and 2 diagonals.
8. Write “WOW”. Draw mirror line.
   Ans: It looks same on both sides.

Section D — Skill (2 × 2 = 4)

9. Draw digit 8. Show vertical and horizontal lines of symmetry.
   Ans: 2 lines of symmetry.

10. Draw a butterfly. Mark its line of symmetry.
Ans: Vertical line dividing wings.

Lesson 6: Be My Multiple, I'll Be Your Factor

Learning Outcomes

By the end of this lesson, children will be able to:

- Define and identify multiples and factors of numbers.
- Distinguish between prime and composite numbers.
- Apply divisibility rules for 2, 3, 5, 10.
- Solve problems involving LCM and HCF in simple contexts.
- Understand the relationship between factors and multiples in real life.

Question Bank

Knowledge Questions (20)

1. What is a multiple of 5 after 20? **(Ans: 25)**
2. First multiple of any number is? **(Ans: The number itself)**
3. What is the smallest multiple of 7? **(Ans: 7)**
4. Is 20 a multiple of 4? **(Ans: Yes)**
5. Is 25 a multiple of 6? **(Ans: No)**
6. Factors of 12? **(Ans: 1, 2, 3, 4, 6, 12)**
7. Factors of 15? **(Ans: 1, 3, 5, 15)**
8. Which is a prime number: 7 or 9? **(Ans: 7)**
9. Which is a composite number: 13 or 15? **(Ans: 15)**
10. Factor of every number? **(Ans: 1)**
11. The number is factor of itself? **(Ans: Yes)**
12. Smallest prime number? **(Ans: 2)**
13. Largest 2-digit prime number? **(Ans: 97)**
14. Multiples of 10 till 50? **(Ans: 10, 20, 30, 40, 50)**
15. Factors of 20? **(Ans: 1, 2, 4, 5, 10, 20)**
16. Is 2 a factor of 18? **(Ans: Yes)**
17. Is 7 a factor of 49? **(Ans: Yes)**
18. Is 3 a factor of 50? **(Ans: No)**
19. Multiples of 8 till 40? **(Ans: 8, 16, 24, 32, 40)**

20. Factors of 9? **(Ans: 1, 3, 9)**

Comprehension Questions (20)

1. Why is 1 a factor of all numbers? **(Ans: Every number divides by 1)**
2. Why is every number a multiple of itself? **(Ans: n × 1 = n)**
3. Why is 2 the only even prime number? **(Ans: Divisible only by 1 and 2)**
4. Why is 9 not a prime number? **(Ans: Divisible by 3)**
5. Why is 7 a prime number? **(Ans: Only factors 1, 7)**
6. Which is greater: multiple of 5 or factor of 5? **(Ans: Multiples are greater)**
7. Why is 100 a multiple of 10? **(Ans: 10 × 10 = 100)**
8. Why is 6 a factor of 18? **(Ans: 18 ÷ 6 = 3, no remainder)**
9. Why is 25 not divisible by 3? **(Ans: Remainder not zero)**
10. Why is 40 divisible by 2, 5, 10? **(Ans: Ends in 0, even number)**
11. Which number is factor of every number? **(Ans: 1)**
12. Which number is multiple of every number? **(Ans: 0)**
13. Why is 37 prime? **(Ans: Only 1 and 37 divide it)**
14. Why is 45 composite? **(Ans: Many factors)**
15. Why does 2 divide every even number? **(Ans: Even = multiples of 2)**
16. Why is 100 divisible by 4? **(Ans: Last two digits 00, divisible by 4 rule)**
17. Why is 99 divisible by 3? **(Ans: Sum of digits 9+9=18 divisible by 3)**
18. Why is 120 divisible by 10? **(Ans: Ends with 0)**
19. Which is more: number of factors of 24 or 29? **(Ans: 24 has more factors)**
20. Why is HCF of 8 and 12 = 4? **(Ans: Highest common factor)**

Application Questions (20)

1. Write first 5 multiples of 6. **(Ans: 6, 12, 18, 24, 30)**
2. Write first 5 multiples of 9. **(Ans: 9, 18, 27, 36, 45)**
3. Find factors of 28. **(Ans: 1, 2, 4, 7, 14, 28)**

4. Find factors of 32. **(Ans: 1, 2, 4, 8, 16, 32)**
5. Is 7 a factor of 56? **(Ans: Yes)**
6. Is 8 a factor of 100? **(Ans: No)**
7. Find LCM of 4 and 6. **(Ans: 12)**
8. Find LCM of 5 and 7. **(Ans: 35)**
9. Find HCF of 12 and 18. **(Ans: 6)**
10. Find HCF of 25 and 30. **(Ans: 5)**
11. Find prime factors of 36. **(Ans: 2 × 2 × 3 × 3)**
12. Find prime factors of 60. **(Ans: 2 × 2 × 3 × 5)**
13. Write 20 as product of prime numbers. **(Ans: 2 × 2 × 5)**
14. Write 45 as product of prime numbers. **(Ans: 3 × 3 × 5)**
15. A shopkeeper packs 24 pencils into equal boxes. What are possible box sizes? **(Ans: 1, 2, 3, 4, 6, 8, 12, 24)**
16. 30 apples shared equally among children. Possible groups? **(Ans: 1, 2, 3, 5, 6, 10, 15, 30)**
17. Which is greater: LCM of 8, 12 or HCF of 8, 12? **(Ans: 24 vs 4 → LCM greater)**
18. If 4 bells ring every 6, 8, 12 seconds, after how many seconds will they ring together? **(Ans: 24)**
19. If HCF of 15 and 25 is 5, explain why. **(Ans: 5 divides both, largest such number)**
20. If LCM of 9 and 12 is 36, explain why. **(Ans: 36 is smallest common multiple)**

Skill-Based Questions with Figures (20)

Use factor trees, arrays, multiples tables.

1. Draw factor tree of 36. **(Ans: 36 → 2×18 → 2×9 → 3×3)**
2. Draw factor tree of 60. **(Ans: 60 → 2×30 → 2×15 → 3×5)**

3. Show multiples of 2 on number line till 20.
4. Show multiples of 5 on number line till 30.
5. Draw array for 3×4. **(Ans: 12 dots)**
6. Draw array for 6×5. **(Ans: 30 dots)**
7. Circle factors of 12 from numbers: 1, 2, 3, 4, 5, 6, 12.
8. Circle factors of 18: 1, 2, 3, 6, 9, 18.
9. Circle prime numbers till 20. **(Ans: 2,3,5,7,11,13,17,19)**
10. Show HCF of 8, 12 using factor tree. **(Ans: 4)**
11. Show LCM of 4, 6 using multiples. **(Ans: 12)**
12. Draw Venn diagram for factors of 12, 18. **(Ans: Common = 1,2,3,6)**
13. Draw Venn diagram for factors of 20, 30. **(Ans: Common = 1,2,5,10)**
14. Show divisibility by 2 using last digit rule.
15. Show divisibility by 5 using last digit rule.
16. Show divisibility by 10 using last digit rule.
17. Show divisibility by 3 using sum of digits.
18. Colour multiples of 4 on number chart 1–40.
19. Colour factors of 24 on number chart 1–24.
20. Draw prime factorisation chart for 48. **(Ans: 2×2×2×2×3)**

Blueprint — Lesson 6: Be My Multiple, I'll Be Your Factor

Objective	No. of Q	Marks	Difficulty Level

Objective	No. of Q	Marks	Difficulty Level
Knowledge	4	4	3 Easy, 1 Medium
Comprehension	2	3	1 Easy, 1 Medium
Application	3	6	2 Medium, 1 Hard
Skill (Figures)	1	2	1 Easy
TOTAL	**10**	**15**	**Easy 45% · Medium 40% · Hard 15%**

Model Question Paper – Lesson 6: Be My Multiple, I'll Be Your Factor

Class: 5 **Subject:** Mathematics
Max Marks: 15 **Time:** 30 minutes

Section A — Knowledge (4 × 1 = 4)

1. Write first multiple of 7. **(Ans: 7)**
2. Smallest prime number? **(Ans: 2)**
3. Factors of 12? **(Ans: 1, 2, 3, 4, 6, 12)**
4. Which is a composite number: 11 or 15? **(Ans: 15)**

Section B — Comprehension (2 × 1.5 = 3)

5. Why is 2 the only even prime?
   Ans: It has only 2 factors: 1 and 2.
6. Why is 45 composite?
   Ans: Many factors (1, 3, 5, 9, 15, 45).

Section C — Application (3 × 2 = 6)

7. Find LCM of 4 and 6. **(Ans: 12)**
8. Find HCF of 25 and 30. **(Ans: 5)**
9. Prime factors of 36? **(Ans: 2×2×3×3)**

Section D — Skill (1 × 2 = 2)

10. Draw factor tree of 60.

- Prime factorisation? **Ans: 2×2×3×5**

Lesson 7: Can You See the Pattern?

Learning Outcomes

By the end of this lesson, children will be able to:

- Recognise and extend number patterns.
- Identify rules behind increasing and decreasing sequences.
- Create their own patterns using numbers, shapes, and letters.
- Relate patterns to multiplication tables and everyday designs.
- Apply logical thinking to continue complex patterns.

Question Bank

Knowledge Questions (20)

1. What comes next: 2, 4, 6, 8? **(Ans: 10)**
2. What comes next: 5, 10, 15, 20? **(Ans: 25)**
3. What comes next: 1, 3, 5, 7? **(Ans: 9)**
4. Write next: 10, 20, 30, 40. **(Ans: 50)**
5. Next number: 100, 90, 80? **(Ans: 70)**
6. Next number: 1, 2, 4, 8? **(Ans: 16)**
7. Next number: 11, 22, 33? **(Ans: 44)**
8. Next letter: A, B, A, B? **(Ans: A)**
9. Next letter: X, Y, X, Y? **(Ans: X)**
10. Next shape: ● ▲ ● ▲? **(Ans: ●)**
11. Next multiple of 6 after 24? **(Ans: 30)**
12. Next multiple of 9 after 45? **(Ans: 54)**
13. Write odd number after 37. **(Ans: 39)**
14. Write even number after 56. **(Ans: 58)**
15. Write square number after 49. **(Ans: 64)**
16. Write cube number after 27. **(Ans: 64)**

17. Pattern: 2, 4, 8, 16. Rule? **(Ans: ×2)**
18. Pattern: 100, 90, 80. Rule? **(Ans: –10)**
19. Pattern: 1, 3, 5. Rule? **(Ans: +2, odd numbers)**
20. Pattern: 5, 10, 15. Rule? **(Ans: +5, multiples of 5)**

Comprehension Questions (20)

1. Why is 2, 4, 6, 8 called an even pattern? **(Ans: Only even numbers)**
2. Why is 1, 3, 5, 7 an odd pattern? **(Ans: Only odd numbers)**
3. Why is 2, 4, 8, 16 doubling pattern? **(Ans: Multiply by 2 each step)**
4. Why is 100, 90, 80 decreasing pattern? **(Ans: Subtract 10 each time)**
5. Why do we call 5, 10, 15 multiples of 5? **(Ans: 5×1, 5×2, 5×3)**
6. Which is the rule: 3, 6, 9, 12? **(Ans: +3, multiples of 3)**
7. Why is 1, 4, 9, 16 square numbers pattern? **(Ans: 1^2, 2^2, 3^2, 4^2)**
8. Why is 1, 8, 27, 64 cube numbers pattern? **(Ans: 1^3, 2^3, 3^3, 4^3)**
9. Which is missing in 2, 4, __, 8? **(Ans: 6)**
10. Which is missing in 5, __, 15, 20? **(Ans: 10)**
11. Which is missing in A, B, __, B? **(Ans: A)**
12. Which is missing in ● ▲ ● __? **(Ans: ▲)**
13. Why does ×2 pattern grow faster than +2 pattern? **(Ans: Multiplying doubles each time)**
14. Why is –5 sequence decreasing? **(Ans: Subtract 5 each step)**
15. Which grows faster: multiples of 2 or multiples of 10? **(Ans: Multiples of 10)**
16. Why are patterns useful? **(Ans: Help in prediction)**
17. Why do we call 121, 131, 141 number patterns? **(Ans: Add 10 each step)**
18. Why are chessboards pattern examples? **(Ans: Alternate colours repeat)**
19. Why are rangoli designs patterns? **(Ans: Repeated symmetrical shapes)**
20. Why is 2, 4, 8, 16 also a pattern of exponents? **(Ans: 2^1, 2^2, 2^3, 2^4)**

Application Questions (20)

1. Continue: 7, 14, 21, __, __. **(Ans: 28, 35)**
2. Continue: 12, 24, 36, __, __. **(Ans: 48, 60)**
3. Fill: 100, 90, 80, __, __. **(Ans: 70, 60)**
4. Fill: 1, 2, 4, 8, __, __. **(Ans: 16, 32)**
5. Fill: 3, 6, 12, 24, __. **(Ans: 48)**
6. Fill: 1, 4, 9, 16, __, __. **(Ans: 25, 36)**
7. Fill: 1, 8, 27, 64, __. **(Ans: 125)**
8. Write next 2 odd numbers after 81. **(Ans: 83, 85)**
9. Write next 2 even numbers after 100. **(Ans: 102, 104)**
10. Find next 3 in pattern: 2, 5, 10, 17. **(Ans: 26, 37, 50)**
11. Find next 3 in pattern: 1, 3, 6, 10. **(Ans: 15, 21, 28)**
12. Find missing in 5, 15, 45, __. **(Ans: 135)**
13. Find missing in 2, 6, 18, __. **(Ans: 54)**
14. Continue: A, B, C, A, B, C, __, __. **(Ans: A, B)**
15. Continue: ● ▲ ■ ● ▲ ■ __, __. **(Ans: ●, ▲)**
16. Write 3 multiples of 11 after 55. **(Ans: 66, 77, 88)**
17. Write 3 multiples of 12 after 48. **(Ans: 60, 72, 84)**
18. A design repeats after 5 beads. Fill next: red, blue, green, yellow, pink, __. **(Ans: red)**
19. Pattern: 2, 4, 6, 8. Rule? **(Ans: +2)**
20. Pattern: 2, 4, 8, 16. Rule? **(Ans: ×2)**

Skill-Based Questions with Figures (20)

Use beads, tiles, rangoli, dots.

1. Draw ● ▲ ● ▲. Next? **(Ans: ●)**
2. Draw ■ ○ ■ ○. Next? **(Ans: ■)**

3. Draw star-heart-star-heart. Next? **(Ans: Star)**
4. Draw chessboard pattern. Fill missing square.
5. Draw rangoli with triangle-circle-triangle.
6. Draw 2 rows of red-blue beads repeating.
7. Draw flowers: 1, 2, 3 petals pattern. Next = 4 petals.
8. Draw shapes growing bigger.
9. Draw staircase of blocks 1, 2, 3, 4. Next = 5.
10. Draw number triangle 1, 2, 3 rows. Next row 4.
11. Draw clock pattern showing 12, 3, 6, 9. Next = 12.
12. Draw domino dots: 1, 2, 3. Next = 4.
13. Draw arrows repeating ↑ ↓ ↑ ↓. Next = ↑.
14. Draw smiley-sad-smiley-sad. Next = Smiley.
15. Draw increasing circles: small, medium, big. Next = bigger.
16. Draw border design: ■ ● ■ ●. Next = ■.
17. Draw tree pattern: 1 leaf, 2 leaves, 3 leaves. Next = 4.
18. Draw car tyre pattern with 5 spokes. Next = 5 spokes.
19. Draw necklace of beads red-green-blue. Repeat.
20. Draw star pattern: 1 star, 2 stars, 3 stars. Next = 4.

Blueprint — Lesson 7: Can You See the Pattern?

Objective	No. of Q	Marks	Difficulty Level
Knowledge	3	3	2 Easy, 1 Medium
Comprehension	2	3	1 Easy, 1 Medium
Application	3	6	2 Medium, 1 Hard
Skill (Figures)	2	3	2 Easy
TOTAL	**10**	**15**	**Easy 45% · Medium 40% · Hard 15%**

Model Question Paper – Lesson 7: Can You See the Pattern?

Class: 5 **Subject:** Mathematics
Max Marks: 15 **Time:** 30 minutes

Section A — Knowledge (3 × 1 = 3)

1. Next in 2, 4, 6, 8? **(Ans: 10)**
2. Next in 5, 10, 15, 20? **(Ans: 25)**
3. Next in 1, 2, 4, 8? **(Ans: 16)**

Section B — Comprehension (2 × 1.5 = 3)

4. Why is 100, 90, 80 called decreasing pattern?
   Ans: Subtract 10 each time.
5. Why is 1, 3, 5, 7 an odd number pattern?
   Ans: Only odd numbers appear.

Section C — Application (3 × 2 = 6)

6. Continue: 7, 14, 21, __, __.
   Ans: 28, 35
7. Fill: 1, 4, 9, 16, __, __.
   Ans: 25, 36 (square numbers)
8. Find missing: 2, 6, 18, __.
   Ans: 54 (×3)

Section D — Skill (2 × 1.5 = 3)

9. Draw ● ▲ ● ▲. What comes next?
   Ans: ●
10. Draw border design: ■ ○ ■ ○. What comes next?
    Ans: ■

Lesson 8: Mapping Your Way

Learning Outcomes

By the end of this lesson, children will be able to:

- Understand and use directions (North, South, East, West).
- Read simple maps and symbols.
- Use scale to find distances on maps.
- Identify landmarks and routes.
- Draw simple maps of classroom, school, or locality.

Question Bank

Knowledge Questions (20)

1. Which direction is opposite of North? **(Ans: South)**
2. Which direction is opposite of East? **(Ans: West)**
3. If you face North, which direction is to your right? **(Ans: East)**
4. If you face East, which direction is behind you? **(Ans: West)**
5. How many main directions are there? **(Ans: 4)**
6. Name the four main directions. **(Ans: North, South, East, West)**
7. Name two sub-directions. **(Ans: North-East, South-West)**
8. Which direction is between North and East? **(Ans: North-East)**
9. Which direction is between South and West? **(Ans: South-West)**
10. Which direction is between North and West? **(Ans: North-West)**
11. Which direction is between South and East? **(Ans: South-East)**
12. Symbol for school in maps? **(Ans: Small square with flag or "Sch")**
13. Symbol for railway line in maps? **(Ans: Two parallel lines)**
14. Symbol for hospital in maps? **(Ans: Red cross)**
15. Symbol for temple in maps? **(Ans: Triangle)**
16. Symbol for river in maps? **(Ans: Blue wavy line)**

17. What is scale in a map? **(Ans: Ratio of map distance to real distance)**
18. Which direction does the sun rise? **(Ans: East)**
19. Which direction does the sun set? **(Ans: West)**
20. Which direction does a compass show? **(Ans: North)**

Comprehension Questions (20)

1. Why do we need directions in maps? **(Ans: To know where places are)**
2. Why is North shown at top of maps? **(Ans: To standardise maps)**
3. Why are symbols used in maps? **(Ans: To show places clearly in less space)**
4. Why do we use scale in maps? **(Ans: To find real distance)**
5. Why do we use compass? **(Ans: To find directions)**
6. If you walk toward sunrise, which direction? **(Ans: East)**
7. If you walk toward sunset, which direction? **(Ans: West)**
8. If school is East of your home, in which direction is home from school? **(Ans: West)**
9. Why is map better than drawing? **(Ans: Map shows distances, directions)**
10. Why are rivers shown in blue colour? **(Ans: For easy identification)**
11. Which direction is railway station if it is South of school? **(Ans: South)**
12. Which direction is temple if it is North of park? **(Ans: North)**
13. Which direction is hospital if it is West of your house? **(Ans: West)**
14. Why do we show landmarks in maps? **(Ans: For easy reference)**
15. If library is NE of park, which direction is park from library? **(Ans: SW)**
16. Why are maps drawn smaller than real places? **(Ans: To fit on paper)**
17. If 1 cm = 1 km on map, what is 5 cm in real? **(Ans: 5 km)**
18. If 2 cm = 1 km on map, what is 10 cm in real? **(Ans: 5 km)**
19. Why do schools teach map-reading? **(Ans: For understanding locations)**
20. Which is easier: drawing whole city or making a map? **(Ans: Making a map)**

Application Questions (20)

1. If scale = 1 cm = 1 km, find distance for 7 cm. **(Ans: 7 km)**
2. If scale = 1 cm = 2 km, find distance for 8 cm. **(Ans: 16 km)**
3. If distance between school and park = 3 cm on map, scale = 1 cm = 2 km. Real distance? **(Ans: 6 km)**
4. If distance between hospital and house = 5 cm on map, scale = 1 cm = 1 km. Real distance? **(Ans: 5 km)**
5. Your house is East of school. Which direction is school from house? **(Ans: West)**
6. Park is South of library. Which direction is library from park? **(Ans: North)**
7. Temple is 2 km East of your home. Draw and mark direction.
8. Railway station is 4 km North of bus stand. Draw map symbol.
9. A road is 10 cm long on map, scale 1 cm = 5 km. Find real distance. **(Ans: 50 km)**
10. A canal is 15 cm long on map, scale 1 cm = 2 km. Find real distance. **(Ans: 30 km)**
11. If park is 3 km South of house and hospital is 3 km East of park, where is hospital from house? **(Ans: South-East)**
12. If school is North of market and market is West of temple, where is temple from school? **(Ans: South-East)**
13. Draw simple route map of home to school.
14. Draw route from bus stand to railway station using map symbols.
15. Draw map of classroom showing benches and teacher's table.
16. Draw school map showing playground, office, classrooms.
17. On map, 4 cm = 1 km. How much is 20 cm? **(Ans: 5 km)**
18. On map, 5 cm = 10 km. How much is 15 cm? **(Ans: 30 km)**
19. Which direction will you go if you travel from North to East? **(Ans: Right turn)**
20. Which direction if you go from East to South? **(Ans: Right turn)**

Skill-Based Questions with Figures (20)

Use child-friendly **grids, routes, compasses, and symbols**.

1. Draw compass rose (N, S, E, W).
2. Draw compass with NE, SE, SW, NW.
3. Draw house at centre, mark school East.
4. Draw park North of school.
5. Draw hospital West of park.
6. Draw railway station South of hospital.
7. Draw temple NE of school.
8. Draw map of India with arrow showing North.
9. Draw simple classroom map.
10. Draw school ground with gate on East side.
11. Draw road map with bus stop symbol.
12. Draw a map with river in blue.
13. Draw map showing bridge across river.
14. Draw map showing railway track across road.
15. Draw map showing hospital with red cross.
16. Draw map showing post office with letter symbol.
17. Draw map showing playground with children symbol.
18. Draw map showing shop with square symbol.
19. Draw map showing temple with triangle symbol.
20. Draw map with directions arrow (North at top).

Blueprint — Lesson 8: Mapping Your Way

Objective	No. of Q	Marks	Difficulty Level
Knowledge	3	3	2 Easy, 1 Medium
Comprehension	3	4	2 Easy, 1 Medium
Application	2	5	1 Medium, 1 Hard
Skill (Figures)	2	3	1 Easy, 1 Medium
TOTAL	**10**	**15**	**Easy 45% · Medium 40% · Hard 15%**

Model Question Paper – Lesson 8: Mapping Your Way

Class: 5 **Subject:** Mathematics
Max Marks: 15 **Time:** 30 minutes
Section A — Knowledge (3 × 1 = 3)

1. Which direction is opposite of East? **(Ans: West)**
2. Symbol for hospital in maps? **(Ans: Red cross)**
3. Which direction does a compass always show? **(Ans: North)**

Section B — Comprehension (3 × 1⅓ = 4)

4. Why is North shown at the top of maps?
   Ans: To standardise and read maps easily.
5. If you walk toward sunrise, which direction?
   Ans: East
6. Why are symbols used in maps?
   Ans: To show many details clearly in small space.

Section C — Application (2 × 2.5 = 5)

7. If scale = 1 cm = 2 km, what is real distance for 8 cm on map?
   Ans: 16 km
8. If park is South of school and hospital is East of park, which direction is hospital from school?
   Ans: South-East

Section D — Skill (2 × 1.5 = 3)

9. Draw compass rose showing 4 main directions.
10. Draw house at centre, mark school to the East.

Lesson 9: Boxes and Sketches

Learning Outcomes

By the end of this lesson, children will be able to:

- Recognise 3D objects like cube, cuboid, cylinder, cone.
- Identify faces, edges, and corners of solid shapes.
- Draw simple nets of cubes and cuboids.
- Understand top, side, and front views of objects.
- Relate real-life objects (dice, gift box, bricks) to solid shapes.

Question Bank

◈ Knowledge Questions (20)

1. How many faces does a cube have? **(Ans: 6)**
2. How many faces does a cuboid have? **(Ans: 6)**
3. How many faces does a cylinder have? **(Ans: 3)**
4. How many faces does a cone have? **(Ans: 2)**
5. How many faces does a sphere have? **(Ans: 1, curved)**
6. How many edges does a cube have? **(Ans: 12)**
7. How many edges does a cuboid have? **(Ans: 12)**
8. How many edges does a cone have? **(Ans: 1)**
9. How many edges does a cylinder have? **(Ans: 2)**
10. How many vertices does a cube have? **(Ans: 8)**
11. How many vertices does a cuboid have? **(Ans: 8)**
12. How many vertices does a cone have? **(Ans: 1)**
13. How many vertices does a sphere have? **(Ans: 0)**
14. Which solid shape looks like a dice? **(Ans: Cube)**
15. Which solid shape looks like a brick? **(Ans: Cuboid)**

16. Which solid shape looks like a ball? **(Ans: Sphere)**
17. Which solid shape looks like an ice-cream cone? **(Ans: Cone)**
18. Which solid shape looks like a can? **(Ans: Cylinder)**
19. How many equal squares form a cube's net? **(Ans: 6)**
20. How many rectangles in a cuboid's net? **(Ans: 6)**

Comprehension Questions (20)

1. Why does a cube have 6 faces? **(Ans: It is made of 6 equal squares)**
2. Why does cuboid look like box? **(Ans: It has rectangle faces like a box)**
3. Why does cylinder have 3 faces? **(Ans: 2 flat circles, 1 curved surface)**
4. Why does cone have 2 faces? **(Ans: 1 flat, 1 curved)**
5. Why does sphere have 1 face? **(Ans: Fully curved surface)**
6. Why does cube have 12 edges? **(Ans: 4 edges on each pair of parallel faces)**
7. Which is bigger: cube edge 5 or cube edge 10? **(Ans: 10)**
8. Why do dice show cube shape? **(Ans: All equal faces)**
9. Why do bricks show cuboid shape? **(Ans: Faces are rectangles)**
10. Why is top view of cylinder a circle? **(Ans: Circular face visible from above)**
11. Why is side view of cube square? **(Ans: Each side is square)**
12. Why is side view of cuboid rectangle? **(Ans: Faces are rectangles)**
13. Why does net of cube have 6 squares? **(Ans: 6 faces)**
14. Why is net of cuboid different from cube? **(Ans: Rectangles instead of squares)**
15. Why does cone have 1 vertex? **(Ans: Pointed top)**
16. Which 3D shapes roll? **(Ans: Sphere, cylinder, cone)**
17. Which 3D shapes slide? **(Ans: Cube, cuboid)**
18. Why can sphere roll in all directions? **(Ans: Fully curved surface)**
19. Why does box have corners? **(Ans: Vertices formed by edges meeting)**

20. Why does can not have corners? **(Ans: Only curved faces)**

Application Questions (20)

1. Draw cube net. Count squares. **(Ans: 6)**
2. Draw cuboid net. Count rectangles. **(Ans: 6)**
3. Draw cylinder. Mark 3 faces.
4. Draw cone. Mark 2 faces.
5. Draw sphere. Mark curved surface.
6. Which has more edges: cube or cylinder? **(Ans: Cube, 12 vs 2)**
7. Which has more vertices: cone or cuboid? **(Ans: Cuboid, 8 vs 1)**
8. Which has more faces: cube or sphere? **(Ans: Cube)**
9. Which has more corners: cube or cuboid? **(Ans: Both equal, 8)**
10. Top view of a cube? **(Ans: Square)**
11. Front view of cuboid? **(Ans: Rectangle)**
12. Side view of cylinder? **(Ans: Rectangle)**
13. Top view of cylinder? **(Ans: Circle)**
14. Side view of cone? **(Ans: Triangle with curved base)**
15. Net of dice has how many squares? **(Ans: 6)**
16. A cube's edge = 4 cm. Draw net.
17. A cuboid with L=5, B=3, H=2. Draw net.
18. Which objects are cube-shaped? **(Ans: Dice, Rubik's cube, sugar cube)**
19. Which objects are cuboid-shaped? **(Ans: Book, brick, box)**
20. Which objects are cylinder-shaped? **(Ans: Tin, can, drum)**

Skill-Based Questions with Figures (20)

Use cubes, nets, dice, boxes.

1. Draw cube. Shade 1 face.
2. Draw cuboid. Shade 2 opposite faces.

3. Draw cone. Mark vertex.
4. Draw cylinder. Shade curved surface.
5. Draw sphere. Shade part.
6. Draw cube net with 6 squares.
7. Draw cuboid net with 6 rectangles.
8. Draw dice showing 1 on top.
9. Draw dice showing 6 on top.
10. Draw cube from top view.
11. Draw cube from side view.
12. Draw cuboid from top view.
13. Draw cuboid from front view.
14. Draw cone side view.
15. Draw cylinder side view.
16. Draw classroom top view.
17. Draw gift box (cube).
18. Draw book (cuboid).
19. Draw ball (sphere).
20. Draw ice-cream cone.

Blueprint — Lesson 9: Boxes and Sketches

Objective	No. of Q	Marks	Difficulty Level
Knowledge	3	3	2 Easy, 1 Medium
Comprehension	2	3	1 Easy, 1 Medium
Application	3	6	2 Medium, 1 Hard
Skill (Figures)	2	3	1 Easy, 1 Medium
TOTAL	**10**	**15**	**Easy 45% · Medium 40% · Hard 15%**

Model Question Paper – Lesson 9: Boxes and Sketches

Class: 5 **Subject:** Mathematics
Max Marks: 15 **Time:** 30 minutes

Section A — Knowledge (3 × 1 = 3)

1. How many faces does a cube have? **(Ans: 6)**
2. Which solid shape looks like a ball? **(Ans: Sphere)**
3. How many vertices does a cuboid have? **(Ans: 8)**

Section B — Comprehension (2 × 1.5 = 3)

4. Why is top view of cylinder a circle?
   Ans: Because top face is round.
5. Why do dice show cube shape?
   Ans: Dice have 6 equal square faces.

Section C — Application (3 × 2 = 6)

6. Draw cube net. How many squares? **(Ans: 6)**
7. Top view of cuboid? **(Ans: Rectangle)**
8. Which has more edges: cube or cylinder?
   Ans: Cube, 12 vs 2

Section D — Skill (2 × 1.5 = 3)

9. Draw cube. Shade 1 face.
10. Draw cylinder. Mark curved surface.

Lesson 10: Tenths and Hundredths

Learning Outcomes

By the end of this lesson, children will be able to:

- Understand place value of decimal numbers (tenths, hundredths).
- Write and read decimals in money and measurement contexts.
- Convert fractions into decimals (½ = 0.5, ¼ = 0.25).
- Apply decimals in buying/selling, measuring length, and handling money.
- Compare and order decimal numbers.

Question Bank

Knowledge Questions (20)

1. Write ½ as a decimal. **(Ans: 0.5)**
2. Write ¼ as a decimal. **(Ans: 0.25)**
3. Write ¾ as a decimal. **(Ans: 0.75)**
4. Write 1/10 as a decimal. **(Ans: 0.1)**
5. Write 3/10 as a decimal. **(Ans: 0.3)**
6. Write 7/10 as a decimal. **(Ans: 0.7)**
7. Write 1/100 as a decimal. **(Ans: 0.01)**
8. Write 25/100 as a decimal. **(Ans: 0.25)**
9. Write 50/100 as a decimal. **(Ans: 0.5)**
10. Write 75/100 as a decimal. **(Ans: 0.75)**
11. 1 rupee = ___ paise. **(Ans: 100)**
12. 50 paise = ___ rupee. **(Ans: 0.50)**
13. 25 paise = ___ rupee. **(Ans: 0.25)**
14. 75 paise = ___ rupee. **(Ans: 0.75)**
15. 1 metre = ___ cm. **(Ans: 100 cm)**
16. 10 cm = ___ m. **(Ans: 0.1 m)**

17. 50 cm = ___ m. **(Ans: 0.5 m)**
18. 25 cm = ___ m. **(Ans: 0.25 m)**
19. 75 cm = ___ m. **(Ans: 0.75 m)**
20. Write 2.5 in words. **(Ans: Two point five)**

Comprehension Questions (20)

1. Why do we use decimals in money? **(Ans: To show paise as part of rupee)**
2. Why do we use decimals in measurement? **(Ans: To show fractions of units)**
3. Which is bigger: 0.5 or 0.25? **(Ans: 0.5)**
4. Which is smaller: 0.75 or 0.8? **(Ans: 0.75)**
5. Which is greater: 0.9 or 0.99? **(Ans: 0.99)**
6. Why is 0.75 more than 0.5? **(Ans: 75 hundredths > 50 hundredths)**
7. Which is same: 0.5 or ½? **(Ans: Equal)**
8. Which is same: 0.25 or ¼? **(Ans: Equal)**
9. Which is same: 0.75 or ¾? **(Ans: Equal)**
10. Why is 0.1 called "one-tenth"? **(Ans: It shows 1 part of 10)**
11. Why is 0.01 called "one-hundredth"? **(Ans: It shows 1 part of 100)**
12. Which is greater: 1.2 m or 1.02 m? **(Ans: 1.2 m)**
13. Which is less: ₹2.50 or ₹2.05? **(Ans: ₹2.05)**
14. Why is 0.50 same as 0.5? **(Ans: Extra zero doesn't change value)**
15. Why is 0.75 bigger than 0.25? **(Ans: 75 hundredths > 25 hundredths)**
16. Which is greater: 2.5 km or 2.05 km? **(Ans: 2.5 km)**
17. Why is 100 paise written as ₹1.00? **(Ans: Equal to 1 rupee)**
18. Which is greater: 3.50 or 3.05? **(Ans: 3.50)**
19. Which is smaller: 7.25 or 7.5? **(Ans: 7.25)**
20. Why do decimals make calculation easy? **(Ans: No need for fractions)**

Application Questions (20)

1. Convert ₹2.50 into paise. **(Ans: 250 paise)**
2. Convert ₹5.75 into paise. **(Ans: 575 paise)**
3. Convert 0.25 m into cm. **(Ans: 25 cm)**
4. Convert 0.5 m into cm. **(Ans: 50 cm)**
5. Convert 1.75 m into cm. **(Ans: 175 cm)**
6. Add: 2.50 + 3.25. **(Ans: 5.75)**
7. Add: 4.75 + 1.25. **(Ans: 6.00)**
8. Subtract: 5.00 – 2.50. **(Ans: 2.50)**
9. Subtract: 7.50 – 3.25. **(Ans: 4.25)**
10. Multiply 0.5 × 10. **(Ans: 5)**
11. Multiply 0.25 × 4. **(Ans: 1.00)**
12. Divide 5 ÷ 10. **(Ans: 0.5)**
13. Divide 25 ÷ 100. **(Ans: 0.25)**
14. If 1 chocolate costs ₹2.50, what do 4 cost? **(Ans: ₹10.00)**
15. If 1 pencil costs ₹3.75, what do 2 cost? **(Ans: ₹7.50)**
16. If 1 mango costs ₹12.50, what do 5 cost? **(Ans: ₹62.50)**
17. If 1 m = 100 cm, then 1.2 m = ? **(Ans: 120 cm)**
18. If a rope is 2.5 m long, how many cm? **(Ans: 250 cm)**
19. If ½ litre = 0.5 litre, then ¾ litre = ? **(Ans: 0.75 litre)**
20. If 1 paise = 0.01 rupee, how many rupees in 50 paise? **(Ans: 0.50 rupee)**

Skill-Based Questions with Figures (20)

Use **coins, notes, rulers, grids**.

1. Draw ₹1 coin. Shade ½ = 0.50.
2. Draw ₹1 coin. Shade ¼ = 0.25.
3. Draw ₹1 coin. Shade ¾ = 0.75.

4. Draw 100 paise = ₹1. Mark 50 paise = 0.50.
5. Draw a ruler 10 cm. Shade 5 cm. Write 0.5 of 10.
6. Draw a ruler 10 cm. Shade 2.5 cm. Write 0.25 of 10.
7. Draw a ruler 10 cm. Shade 7.5 cm. Write 0.75 of 10.
8. Draw 1 square = 1 rupee. Divide into 100 small squares. Shade 25 = 0.25.
9. Shade 50 squares = 0.50.
10. Shade 75 squares = 0.75.
11. Draw 1 m scale. Show 0.1, 0.2, 0.3 till 1.0.
12. Draw ₹10 note. Divide into 10 equal parts. 1 part = ₹1 = 0.1.
13. Draw ₹100 note. Divide into 100 equal parts. 1 part = ₹1 = 0.01.
14. Draw chocolate ₹2.50. Show 2 + 0.50.
15. Draw pencil ₹3.75. Show 3 + 0.75.
16. Draw mango ₹12.50. Show 12 + 0.50.
17. Draw grid of 10×10. Shade 36 squares = 0.36.
18. Shade 50 squares = 0.50.
19. Shade 75 squares = 0.75.
20. Shade 100 squares = 1.00.

Blueprint — Lesson 10: Tenths and Hundredths

Objective	No. of Q	Marks	Difficulty Level
Knowledge	2	2	2 Easy
Comprehension	2	3	1 Easy, 1 Medium
Application	4	7	2 Medium, 2 Hard
Skill (Figures)	2	3	1 Easy, 1 Medium
TOTAL	**10**	**15**	**Easy 40% · Medium 40% · Hard 20%**

Model Question Paper – Lesson 10: Tenths and Hundredths

Class: 5 **Subject:** Mathematics
Max Marks: 15 **Time:** 30 minutes

Section A — Knowledge (2 × 1 = 2)

1. Write ½ as a decimal. **(Ans: 0.5)**
2. 50 paise = ___ rupee. **(Ans: 0.50)**

Section B — Comprehension (2 × 1.5 = 3)

3. Which is greater: 0.5 or 0.25?
   Ans: 0.5
4. Why is 0.75 more than 0.5?
   Ans: 75 hundredths > 50 hundredths.

Section C — Application (4 × 1.75 = 7)

5. Convert ₹2.50 into paise. **(Ans: 250 paise)**
6. Add: 4.75 + 1.25. **(Ans: 6.00)**
7. Subtract: 7.50 – 3.25. **(Ans: 4.25)**
8. If 1 chocolate costs ₹2.50, what do 4 cost? **(Ans: ₹10.00)**

Section D — Skill (2 × 1.5 = 3)

9. Draw a 10 cm ruler. Shade 5 cm. Write as decimal.
   Ans: 0.5 of 10 cm.
10. Draw grid of 10×10. Shade 25 squares. Write fraction and decimal.
    Ans: 25/100 = 0.25.

Lesson 11: Area and Its Boundary

Learning Outcomes

By the end of this lesson, children will be able to:

- Understand the concept of **perimeter** (length around a shape).
- Understand the concept of **area** (space inside a shape).
- Use formulae for perimeter of square/rectangle and area of square/rectangle.
- Apply area and perimeter in real-life contexts like plots, gardens, and floors.
- Compare and estimate areas and boundaries of different shapes.

Question Bank

Knowledge Questions (20)

1. Formula for perimeter of a square? **(Ans: 4 × side)**
2. Formula for perimeter of a rectangle? **(Ans: 2 × (L + B))**
3. Formula for area of a square? **(Ans: side × side)**
4. Formula for area of a rectangle? **(Ans: L × B)**
5. Perimeter of square side 5? **(Ans: 20 units)**
6. Area of square side 5? **(Ans: 25 sq units)**
7. Perimeter of rectangle 6×4? **(Ans: 20 units)**
8. Area of rectangle 6×4? **(Ans: 24 sq units)**
9. Which is greater: perimeter of square 10 or rectangle 10×5? **(Ans: Square 40, Rectangle 30 → Square greater)**
10. Which is greater: area of square 8 or rectangle 10×5? **(Ans: Square 64, Rectangle 50 → Square greater)**
11. What is unit of perimeter? **(Ans: Units of length – cm, m, km)**
12. What is unit of area? **(Ans: Square units – cm^2, m^2, km^2)**
13. Perimeter of square side 9? **(Ans: 36 units)**
14. Area of square side 9? **(Ans: 81 sq units)**
15. Perimeter of rectangle 12×5? **(Ans: 34 units)**

16. Area of rectangle 12×5? **(Ans: 60 sq units)**
17. Which is longer: boundary of 100×20 rectangle or 60×30 rectangle? **(Ans: First, 240 vs 180)**
18. Which is bigger: area of 100×20 rectangle or 60×30 rectangle? **(Ans: Both = 2000)**
19. Area of square side 15? **(Ans: 225 sq units)**
20. Perimeter of square side 15? **(Ans: 60 units)**

Comprehension Questions (20)

1. Why is perimeter measured in cm or m? **(Ans: Length of boundary)**
2. Why is area measured in square units? **(Ans: Space covered inside)**
3. Which is bigger: 4×4 square or 5×2 rectangle? **(Ans: Area 16 vs 10 → Square bigger)**
4. Which has bigger perimeter: square 6 or rectangle 8×2? **(Ans: 24 vs 20 → Square bigger)**
5. Why do farmers need area of field? **(Ans: For sowing seeds)**
6. Why do builders need perimeter? **(Ans: For fencing walls)**
7. Why do tilers need area? **(Ans: To know tiles required)**
8. Why does bigger perimeter not mean bigger area? **(Ans: Shape matters)**
9. Why does rectangle 12×2 and square 6 have different perimeters but same area? **(Ans: 24 both area, but perimeter differs)**
10. Which shape saves fencing: square or rectangle (same area)? **(Ans: Square)**
11. Why do we compare areas? **(Ans: To know which covers more space)**
12. Why do we compare perimeters? **(Ans: To know which needs more boundary)**
13. Which is more: area of 20×5 or 10×10? **(Ans: Both 100, equal)**
14. Which has smaller boundary: 25×4 or 20×5? **(Ans: 25×4 → perimeter 58 vs 50 → second smaller)**
15. Why is fencing cost based on perimeter? **(Ans: Only boundary fenced)**
16. Why is flooring cost based on area? **(Ans: Tiles cover area)**

17. If 1 tile covers 1 sq m, how many tiles for 12×8 room? **(Ans: 96 tiles)**
18. If rope covers 1 m, how much rope for 12×8 garden? **(Ans: Perimeter = 40 m)**
19. Which is bigger: area of square 12 vs rectangle 14×10? **(Ans: 144 vs 140 → Square bigger)**
20. Which is bigger: perimeter of square 12 vs rectangle 14×10? **(Ans: 48 vs 48 → equal)**

Application Questions (20)

1. Perimeter of square side 20 m? **(Ans: 80 m)**
2. Area of square side 20 m? **(Ans: 400 m²)**
3. Perimeter of rectangle 30×20 m? **(Ans: 100 m)**
4. Area of rectangle 30×20 m? **(Ans: 600 m²)**
5. A square field side 50 m. Perimeter? **(Ans: 200 m)**
6. A square field side 50 m. Area? **(Ans: 2500 m²)**
7. A rectangular park 80×40 m. Perimeter? **(Ans: 240 m)**
8. Area of same park? **(Ans: 3200 m²)**
9. A hall 25×15 m. Perimeter? **(Ans: 80 m)**
10. Area of hall? **(Ans: 375 m²)**
11. A classroom 10×8 m. Perimeter? **(Ans: 36 m)**
12. Area of classroom? **(Ans: 80 m²)**
13. A playground 100×60 m. Area? **(Ans: 6000 m²)**
14. Perimeter of playground? **(Ans: 320 m)**
15. A floor 12×12 m. Area? **(Ans: 144 m²)**
16. Perimeter of same floor? **(Ans: 48 m)**
17. A square tile side 40 cm. Area? **(Ans: 1600 cm²)**
18. Perimeter of same tile? **(Ans: 160 cm)**
19. A garden 25×10 m. Area? **(Ans: 250 m²)**
20. Perimeter of same garden? **(Ans: 70 m)**

Skill-Based Questions with Figures (20)

Use **grid squares, fields, and child-friendly diagrams**.

1. Draw 4×4 square grid. Shade area. Count = 16.
2. Draw 5×2 rectangle grid. Shade area. Count = 10.
3. Draw 6×3 rectangle grid. Count = 18.
4. Draw 8×8 square grid. Area? **(Ans: 64)**
5. Draw 10×5 rectangle grid. Area? **(Ans: 50)**
6. Draw 12×4 rectangle. Perimeter? **(Ans: 32)**
7. Draw 5×5 square. Perimeter? **(Ans: 20)**
8. Draw 6×6 square. Area? **(Ans: 36)**
9. Draw L-shape on 4×4 grid. Count area.
10. Draw irregular shape on grid. Count squares.
11. Draw 8×2 rectangle. Compare perimeter vs 4×4 square.
12. Draw 12×3 rectangle. Compare perimeter vs 9×4 rectangle.
13. Draw field 20×10 m. Mark area & boundary.
14. Draw hall 15×12 m. Show area & boundary.
15. Draw classroom 8×6 m. Mark perimeter.
16. Draw playground 50×30 m. Mark area.
17. Draw square tile 1×1. Repeat 25 times to form 25 m^2 floor.
18. Draw boundary of garden 40×20. Show fencing.
19. Draw field 12×12. Show flooring cost per m^2.
20. Draw orchard 60×40. Mark boundary & area.

Blueprint — Lesson 11: Area and Its Boundary

Objective	No. of Q	Marks	Difficulty Level

Objective	No. of Q	Marks	Difficulty Level
Knowledge	2	2	2 Easy
Comprehension	2	3	1 Easy, 1 Medium
Application	4	7	2 Medium, 2 Hard
Skill (Figures)	2	3	1 Easy, 1 Medium
TOTAL	**10**	**15**	**Easy 40% · Medium 40% · Hard 20%**

Model Question Paper – Lesson 11: Area and Its Boundary

Class: 5 **Subject:** Mathematics
Max Marks: 15 **Time:** 30 minutes

Section A — Knowledge (2 × 1 = 2)

1. Formula for perimeter of square? **(Ans: 4 × side)**
2. Area of rectangle = ? **(Ans: L × B)**

Section B — Comprehension (2 × 1.5 = 3)

3. Why is perimeter measured in cm or m?
   Ans: Because it measures boundary length.
4. Why do tilers need area?
   Ans: To know how many tiles are required.

Section C — Application (4 × 1.75 = 7)

5. A square field side 50 m. Find area. **(Ans: 2500 m²)**
6. A rectangular park 80×40 m. Perimeter? **(Ans: 240 m)**
7. A classroom 10×8 m. Area? **(Ans: 80 m²)**
8. A hall 25×15 m. Perimeter? **(Ans: 80 m)**

Section D — Skill (2 × 1.5 = 3)

9. Draw 5×5 square grid. Shade and write area.
   Ans: 25 sq units.
10. Draw 6×3 rectangle grid. Shade and write perimeter.
    Ans: Perimeter = 18 units.

Lesson 12: Smart Charts

Learning Outcomes

By the end of this lesson, children will be able to:

- Collect and organise data using tally marks.
- Represent data in pictographs and bar graphs.
- Interpret data from charts and graphs.
- Compare quantities using visual representations.
- Apply data handling in real-life contexts like favourite games, fruits, or transport.

Question Bank

Knowledge Questions (20)

1. What is data? **(Ans: Collection of information)**
2. What is a pictograph? **(Ans: Picture graph using symbols)**
3. What is a bar graph? **(Ans: Graph with bars to show data)**
4. What is a tally mark? **(Ans: |||| = 5 lines used to count)**
5. How many tally marks for 7? **(Ans: |||| ||)**
6. How many tally marks for 12? **(Ans: |||| |||| ||)**
7. In pictograph, 1 apple symbol = 2 apples. What does 5 apples mean? **(Ans: 2½ symbols)**
8. In pictograph, 1 smiley = 5 children. What does 4 smileys mean? **(Ans: 20 children)**
9. Which chart uses pictures? **(Ans: Pictograph)**
10. Which chart uses bars? **(Ans: Bar graph)**
11. Which chart uses tallies? **(Ans: Tally chart)**
12. Which is easier for children: bar graph or pictograph? **(Ans: Pictograph)**
13. Which graph uses X and Y axes? **(Ans: Bar graph)**
14. If bar is longer, does it show more or less? **(Ans: More)**

15. If bar is shorter, does it show more or less? **(Ans: Less)**
16. What is horizontal bar graph? **(Ans: Bars across left–right)**
17. What is vertical bar graph? **(Ans: Bars up–down)**
18. Which chart uses scaling? **(Ans: Bar graph, pictograph)**
19. Which chart is best for quick look? **(Ans: Pictograph)**
20. Which chart is better for large data? **(Ans: Bar graph)**

Comprehension Questions (20)

1. Why are tally marks grouped in 5? **(Ans: Easy to count)**
2. Why are pictographs child-friendly? **(Ans: Pictures easy to read)**
3. Why are bar graphs useful? **(Ans: Show comparison clearly)**
4. Why do we need symbols in pictographs? **(Ans: Saves space)**
5. Why is scale used in pictograph? **(Ans: 1 picture = many objects)**
6. Why is scale important in bar graphs? **(Ans: To represent numbers accurately)**
7. Why does long bar mean more data? **(Ans: Bar length = quantity)**
8. Why does short bar mean less data? **(Ans: Small bar = smaller number)**
9. Which chart is used in newspapers? **(Ans: Bar graph, pie chart)**
10. Which chart is better for birthday chart? **(Ans: Pictograph)**
11. Which chart is better for rainfall data? **(Ans: Bar graph)**
12. Why are pictographs not good for fractions? **(Ans: Symbols difficult to cut)**
13. Why can bar graph show fractions? **(Ans: Bars can be divided)**
14. Why do schools use charts for attendance? **(Ans: To compare easily)**
15. Why do bar graphs need equal width bars? **(Ans: For fairness in data)**
16. Why do pictographs need key? **(Ans: To show what each symbol means)**
17. Which is easier for quick data: bar graph or tally chart? **(Ans: Bar graph)**
18. Why do shopkeepers use bar graphs? **(Ans: To check sales)**

19. Why do children like pictographs? **(Ans: Colourful, fun symbols)**
20. Why are charts called “smart”? **(Ans: Make data easy to understand)**

Application Questions (20)

1. Make tally marks for 11 apples. **(Ans:** |||| |||| |**)**
2. Make tally marks for 18 oranges. **(Ans:** |||| |||| |||| |||| | | |**)**
3. Make tally marks for 25 pencils. **(Ans:** |||| |||| |||| |||| ||||**)**
4. If 1 ball symbol = 2 balls, show 10 balls in pictograph. **(Ans: 5 ball pictures)**
5. If 1 mango symbol = 4 mangoes, show 20 mangoes. **(Ans: 5 mango pictures)**
6. If 1 smiley = 10 children, show 35 children. **(Ans: 3½ smileys)**
7. If 1 star = 5 games, show 25 games. **(Ans: 5 stars)**
8. Draw bar graph: fruits eaten → Apple=4, Mango=6, Banana=8.
9. Draw bar graph: transport to school → Walk=5, Cycle=10, Bus=15.
10. Draw bar graph: favourite colour → Red=7, Blue=9, Green=6.
11. Show pictograph: toys → Car=6, Doll=8, Ball=10 (1 picture = 2 toys).
12. Show pictograph: students in houses → Red=12, Blue=8, Green=10 (1 symbol = 2 students).
13. Use bar graph to compare 2010=50, 2011=60, 2012=70 marks.
14. Use pictograph to show pets: Cat=6, Dog=4, Rabbit=2 (1 symbol=2 pets).
15. Attendance of 5 days: 20, 25, 30, 28, 27. Draw bar graph.
16. Rainfall (cm): Jan=2, Feb=4, Mar=6. Draw bar graph.
17. If 1 smiley=5 kids, show 25 kids like cricket.
18. If 1 book symbol=10 books, show 50 books in pictograph.
19. Make bar graph for marks out of 10: A=7, B=9, C=5.
20. Make tally chart for 14 chocolates. **(Ans:** |||| |||| |||| | | | |**)**

Skill-Based Questions with Figures (20)

Use **pictographs and bar graphs with simple drawings**.

1. Draw tally chart for 10 pencils.
2. Draw pictograph: 1 apple symbol=2 apples. Show 6 apples.
3. Draw pictograph: 1 banana symbol=5 bananas. Show 15 bananas.
4. Draw pictograph: 1 mango=4 mangoes. Show 12 mangoes.
5. Draw bar graph: Games liked (Cricket=8, Football=6, Kabaddi=4).
6. Draw bar graph: Vehicles (Cycle=3, Scooter=5, Bus=7).
7. Draw bar graph: Colours (Red=5, Blue=4, Green=6).
8. Draw bar graph: Food items (Rice=8, Chapati=10, Bread=6).
9. Draw pictograph: Pets (Cat=6, Dog=8, Rabbit=4).
10. Draw pictograph: Birds (Parrot=10, Crow=5, Pigeon=15).
11. Draw pictograph: 1 smiley=2 children. Show 10 children.
12. Draw pictograph: 1 star=1 toy. Show 7 toys.
13. Draw bar graph: Attendance (Mon=20, Tue=25, Wed=30).
14. Draw bar graph: Fruits sold (Apple=15, Orange=10, Mango=20).
15. Draw pictograph: Chocolates (A=4, B=6, C=8, D=10).
16. Draw bar graph: Marks in Maths (Ali=40, Rani=45, Sunil=50).
17. Draw pictograph: Favourite fruits (Apple=5, Mango=7, Banana=6).
18. Draw bar graph: Library books (English=100, Hindi=120, Maths=80).
19. Draw pictograph: Bags (Red=3, Blue=5, Green=2).
20. Draw bar graph: Rainfall (April=5, May=7, June=10 cm).

Blueprint — Lesson 12: Smart Charts

Objective	No. of Q	Marks	Difficulty Level
Knowledge	2	2	2 Easy
Comprehension	2	3	1 Easy, 1 Medium
Application	3	6	2 Medium, 1 Hard
Skill (Figures)	3	4	2 Easy, 1 Medium
TOTAL	**10**	**15**	**Easy 40% · Medium 40% · Hard 20%**

Model Question Paper – Lesson 12: Smart Charts
Class: 5 **Subject:** Mathematics
Max Marks: 15 **Time:** 30 minutes
Section A — Knowledge (2 × 1 = 2)

1. What is a pictograph? **(Ans: A graph using pictures to show data)**
2. Which chart uses X and Y axes? **(Ans: Bar graph)**

Section B — Comprehension (2 × 1.5 = 3)

3. Why are tally marks grouped in 5?
   Ans: Easy to count quickly.
4. Why are pictographs child-friendly?
   Ans: Pictures are simple to read and understand.

Section C — Application (3 × 2 = 6)

5. Make tally marks for 11 apples.
   Ans: |||| |||| |
6. If 1 smiley = 10 children, show 35 children in pictograph.
   Ans: 3½ smileys.
7. Draw bar graph: Fruits sold → Apple=4, Mango=6, Banana=8.

Section D — Skill (3 × 1⅓ = 4)

8. Draw pictograph: 1 ball symbol = 2 balls. Show 10 balls.
   Ans: 5 ball pictures.
9. Draw pictograph: 1 star = 5 games. Show 25 games.
   Ans: 5 stars.

10. Draw bar graph: Vehicles → Cycle=3, Scooter=5, Bus=7.

Lesson 13: Ways to Multiply and Divide

Learning Outcomes

By the end of this lesson, children will be able to:

- Multiply 2-digit and 3-digit numbers by 1-digit and 2-digit numbers.
- Use area model and expanded form to solve multiplication.
- Divide numbers using repeated subtraction and long division method.
- Apply multiplication and division to solve word problems.
- Estimate products and quotients to check reasonableness.

Question Bank

Knowledge Questions (20)

1. 12 × 2 = ? **(Ans: 24)**
2. 25 × 4 = ? **(Ans: 100)**
3. 36 ÷ 6 = ? **(Ans: 6)**
4. 81 ÷ 9 = ? **(Ans: 9)**
5. 100 ÷ 10 = ? **(Ans: 10)**
6. 120 ÷ 12 = ? **(Ans: 10)**
7. 45 ÷ 5 = ? **(Ans: 9)**
8. 3 × 15 = ? **(Ans: 45)**
9. 200 ÷ 2 = ? **(Ans: 100)**
10. 400 ÷ 20 = ? **(Ans: 20)**
11. 50 × 6 = ? **(Ans: 300)**
12. 25 × 12 = ? **(Ans: 300)**
13. 7 × 13 = ? **(Ans: 91)**
14. 84 ÷ 7 = ? **(Ans: 12)**
15. 96 ÷ 8 = ? **(Ans: 12)**
16. 121 ÷ 11 = ? **(Ans: 11)**

17. 9 × 9 = ? **(Ans: 81)**
18. 12 × 12 = ? **(Ans: 144)**
19. 15 ÷ 3 = ? **(Ans: 5)**
20. 144 ÷ 12 = ? **(Ans: 12)**

Comprehension Questions (20)

1. Why is multiplication called repeated addition? **(Ans: 4 × 3 = 4+4+4)**
2. Why is division called repeated subtraction? **(Ans: 12 ÷ 4 = 12–4–4–4)**
3. Why do we estimate before multiplying? **(Ans: To check reasonableness)**
4. Why is 5 × 20 = 100 easier than 5 × 23? **(Ans: Round numbers easier)**
5. Why does 0 multiplied with any number = 0? **(Ans: No groups formed)**
6. Why does any number multiplied with 1 = itself? **(Ans: One group of the number)**
7. Why is division called the inverse of multiplication? **(Ans: 6×4=24, 24÷4=6)**
8. Why is 100 ÷ 10 = 10? **(Ans: 10 groups of 10 = 100)**
9. Why is 100 ÷ 2 = 50? **(Ans: Half of 100)**
10. Why is 12 × 10 easier than 12 × 9? **(Ans: Multiples of 10 easier)**
11. Which is quicker: multiplying 50 × 6 or adding 50 six times? **(Ans: Multiplying)**
12. Why does 36 ÷ 6 = 6? **(Ans: 6 groups of 6 = 36)**
13. Why is 12 × 0 = 0? **(Ans: Nothing added)**
14. Why is 120 ÷ 12 = 10? **(Ans: 12 groups in 120)**
15. Why does 25 × 4 = 100? **(Ans: 4 groups of 25)**
16. Why does 84 ÷ 7 = 12? **(Ans: 7 groups in 84)**
17. Why is division with remainder important? **(Ans: Sometimes not exact groups)**
18. Why do we check answers by multiplying divisor × quotient + remainder? **(Ans: To verify division)**

19. Why is long multiplication useful? **(Ans: For bigger numbers)**
20. Why is long division method systematic? **(Ans: Step by step process)**

Application Questions (20)

1. 125 × 3 = ? **(Ans: 375)**
2. 245 × 5 = ? **(Ans: 1225)**
3. 326 × 4 = ? **(Ans: 1304)**
4. 120 ÷ 8 = ? **(Ans: 15)**
5. 225 ÷ 9 = ? **(Ans: 25)**
6. 300 ÷ 25 = ? **(Ans: 12)**
7. 576 ÷ 12 = ? **(Ans: 48)**
8. 864 ÷ 8 = ? **(Ans: 108)**
9. 999 ÷ 9 = ? **(Ans: 111)**
10. 345 × 12 = ? **(Ans: 4140)**
11. 456 × 15 = ? **(Ans: 6840)**
12. 312 × 25 = ? **(Ans: 7800)**
13. A packet has 24 biscuits. 12 packets = ? **(Ans: 288 biscuits)**
14. A pen costs ₹15. 35 pens = ? **(Ans: ₹525)**
15. A bus carries 45 people. 25 buses = ? **(Ans: 1125 people)**
16. If 500 apples shared among 25 children, each child gets? **(Ans: 20)**
17. If ₹720 shared among 12 students, each gets? **(Ans: ₹60)**
18. If 1800 kg wheat packed in 30 bags, each bag = ? **(Ans: 60 kg)**
19. A train has 12 compartments with 75 seats each. Total seats = ? **(Ans: 900)**
20. A school has 24 classes with 45 students each. Total = ? **(Ans: 1080 students)**

Skill-Based Questions with Figures (20)

Use **area models, groups, division bars**.

1. Draw area model for 12 × 15.

2. Draw box method for 23 × 12.
3. Draw array of 3 rows × 5 dots. Total = ? **(Ans: 15)**
4. Draw array of 4 rows × 6 dots. Total = ? **(Ans: 24)**
5. Show repeated addition for 6 × 4. **(Ans: 6+6+6+6 = 24)**
6. Show repeated subtraction for 20 ÷ 4. **(Ans: 20–4–4–4–4–4 = 0)**
7. Draw long division for 84 ÷ 7. **(Ans: 12)**
8. Draw long division for 125 ÷ 5. **(Ans: 25)**
9. Draw grid for 18 × 12.
10. Draw bar model for 96 ÷ 8. **(Ans: 12)**
11. Show multiplication using expanded form: 34 × 12.
12. Show division with remainder: 25 ÷ 4. **(Ans: 6 remainder 1)**
13. Group 20 circles into 4 groups. Each group = ? **(Ans: 5)**
14. Group 30 stars into 6 groups. Each = ? **(Ans: 5)**
15. Group 28 apples into 7 groups. Each = ? **(Ans: 4)**
16. Show multiplication fact family for 6, 4, 24.
17. Show division fact family for 9, 3, 27.
18. Draw array of 10×10 = 100.
19. Draw partition for 200 ÷ 50 = 4.
20. Draw big box = 20 rows × 15 dots = ? **(Ans: 300)**

Blueprint — Lesson 13: Ways to Multiply and Divide

Objective	No. of Q	Marks	Difficulty Level
Knowledge	3	3	2 Easy, 1 Medium
Comprehension	2	3	1 Easy, 1 Medium
Application	3	6	2 Medium, 1 Hard
Skill (Figures)	2	3	1 Easy, 1 Medium
TOTAL	**10**	**15**	**Easy 40% · Medium 40% · Hard 20%**

Model Question Paper – Lesson 13: Ways to Multiply and Divide

Class: 5 **Subject:** Mathematics
Max Marks: 15 **Time:** 30 minutes

Section A — Knowledge (3 × 1 = 3)

1. 25 × 4 = ? **(Ans: 100)**
2. 84 ÷ 7 = ? **(Ans: 12)**
3. 12 × 12 = ? **(Ans: 144)**

Section B — Comprehension (2 × 1.5 = 3)

4. Why is multiplication called repeated addition?
   Ans: Example – 4 × 3 = 4+4+4.
5. Why is division called the inverse of multiplication?
   Ans: If 6×4=24, then 24÷4=6.

Section C — Application (3 × 2 = 6)

6. 245 × 5 = ? **(Ans: 1225)**
7. If 500 apples shared among 25 children, each gets? **(Ans: 20)**
8. A bus carries 45 people. 25 buses = ? **(Ans: 1125 people)**

Section D — Skill (2 × 1.5 = 3)

9. Draw array for 3 rows × 5 dots. Write total.
   Ans: 15
10. Draw long division for 125 ÷ 5. Write quotient.
    Ans: 25

Lesson 14: How Big? How Heavy?

Learning Outcomes

By the end of this lesson, children will be able to:

- Understand standard units of mass (g, kg) and capacity (ml, L).
- Convert between grams ↔ kilograms and millilitres ↔ litres.
- Estimate and compare weights and volumes of objects.
- Apply multiplication/division in mass and volume problems.
- Use simple addition/subtraction in real-life contexts like shopkeeping, kitchen, and water storage.

Question Bank

Knowledge Questions (20)

1. 1000 g = ? **(Ans: 1 kg)**
2. ½ kg = ? g **(Ans: 500 g)**
3. ¼ kg = ? g **(Ans: 250 g)**
4. ¾ kg = ? g **(Ans: 750 g)**
5. 2000 g = ? kg **(Ans: 2 kg)**
6. 5000 g = ? kg **(Ans: 5 kg)**
7. 1 litre = ? ml **(Ans: 1000 ml)**
8. ½ litre = ? ml **(Ans: 500 ml)**
9. ¼ litre = ? ml **(Ans: 250 ml)**
10. 2 litres = ? ml **(Ans: 2000 ml)**
11. 5 litres = ? ml **(Ans: 5000 ml)**
12. Which is heavier: 1 kg or 800 g? **(Ans: 1 kg)**
13. Which is lighter: 1 L or 800 ml? **(Ans: 800 ml)**
14. Unit of weight? **(Ans: g, kg)**
15. Unit of volume? **(Ans: ml, L)**

16. How many grams in 3.5 kg? **(Ans: 3500 g)**
17. How many ml in 3.5 L? **(Ans: 3500 ml)**
18. 1 tonne = ? kg **(Ans: 1000 kg)**
19. Which is heavier: 1 dozen apples 2 kg or 1 dozen bananas 1.5 kg? **(Ans: Apples)**
20. Which has more capacity: 2 L bottle or 1500 ml bottle? **(Ans: 2 L bottle)**

Comprehension Questions (20)

1. Why do we use standard units of mass? **(Ans: To measure weight accurately)**
2. Why do we use kg instead of g for big weights? **(Ans: Easier to handle large numbers)**
3. Why do we use L instead of ml for bigger volumes? **(Ans: Easier to read and write)**
4. Why is 1 kg sugar heavier than 500 g sugar? **(Ans: 1000 g > 500 g)**
5. Which is lighter: 200 ml water or 2 L water? **(Ans: 200 ml)**
6. Why is 1000 g same as 1 kg? **(Ans: 1000 g = 1 kg)**
7. Which is more: 750 ml or ½ litre? **(Ans: Equal)**
8. Which is more: 3.5 kg or 3500 g? **(Ans: Equal)**
9. Why is 250 ml milk = ¼ litre? **(Ans: 250/1000 = ¼)**
10. Why is 500 g = ½ kg? **(Ans: Half of 1000 g)**
11. Which container holds more: 2 L jug or 1500 ml bottle? **(Ans: Jug)**
12. Which is heavier: 1 bag rice 25 kg or 1 bag wheat 20 kg? **(Ans: Rice)**
13. Which is lighter: 3 kg sugar or 3500 g sugar? **(Ans: Same, equal)**
14. Why is 1 L water = 1000 ml? **(Ans: By definition of litre)**
15. Which is heavier: 2.5 kg or 2500 g? **(Ans: Same)**
16. Why do shopkeepers weigh items? **(Ans: To give correct quantity)**
17. Why do we convert g ↔ kg? **(Ans: For easier calculation)**
18. Why do we convert ml ↔ L? **(Ans: To handle bigger amounts)**

19. Which weighs more: 10 packets × 250 g or 2 packets × 1 kg? **(Ans: 2.5 kg vs 2 kg → 10 packets)**
20. Which holds more: 5 bottles × 200 ml or 2 bottles × 500 ml? **(Ans: 1 L each → equal)**

Application Questions (20)

1. Convert 3.5 kg into g. **(Ans: 3500 g)**
2. Convert 4200 g into kg. **(Ans: 4.2 kg)**
3. Convert 5.75 kg into g. **(Ans: 5750 g)**
4. Convert 2500 ml into L. **(Ans: 2.5 L)**
5. Convert 3750 ml into L. **(Ans: 3.75 L)**
6. Add 2.5 kg + 1.75 kg. **(Ans: 4.25 kg)**
7. Subtract 5.25 kg – 2.5 kg. **(Ans: 2.75 kg)**
8. Add 2.5 L + 1.25 L. **(Ans: 3.75 L)**
9. Subtract 7.5 L – 3.25 L. **(Ans: 4.25 L)**
10. A watermelon weighs 3.5 kg. What is its weight in g? **(Ans: 3500 g)**
11. A bucket holds 12 L. How many ml? **(Ans: 12,000 ml)**
12. A jug holds 2.5 L. How many ml? **(Ans: 2500 ml)**
13. A shopkeeper sells 2 kg rice and 750 g sugar. Total weight? **(Ans: 2.75 kg)**
14. A tank holds 1500 L water. How many ml? **(Ans: 15,00,000 ml)**
15. 4 milk packets of 500 ml each. Total L? **(Ans: 2 L)**
16. 5 bags of rice 10 kg each. Total weight? **(Ans: 50 kg)**
17. 8 bottles of 200 ml each. Total L? **(Ans: 1.6 L)**
18. If 2 mangoes = 1 kg, what is weight of 12 mangoes? **(Ans: 6 kg)**
19. If 4 pens weigh 200 g, what do 20 pens weigh? **(Ans: 1000 g = 1 kg)**
20. A can contains 20 L oil. How many 2 L bottles can be filled? **(Ans: 10 bottles)**

Skill-Based Questions with Figures (20)

Use **weights, balance scales, jugs, bottles**.

1. Draw 1 kg weight. Shade 500 g = ½.
2. Draw 1 kg weight. Shade 250 g = ¼.
3. Draw 1 kg weight. Shade 750 g = ¾.
4. Draw balance scale: left pan 1 kg, right pan 500 g. Which heavier? **(Ans: Left)**
5. Draw balance scale: left pan 2 kg, right pan 2000 g. Which heavier? **(Ans: Equal)**
6. Draw balance scale: left pan 3 kg, right pan 2500 g. **(Ans: Left heavier)**
7. Draw 1 L bottle. Shade 500 ml.
8. Draw 1 L bottle. Shade 250 ml.
9. Draw 1 L bottle. Shade 750 ml.
10. Draw jug 2 L. Show half filled. **(Ans: 1 L)**
11. Draw jug 2 L. Show ¾ filled. **(Ans: 1.5 L)**
12. Draw container 5 L. Fill mark at 3 L.
13. Draw tank 10 L. Mark full.
14. Draw 2 L bottle. Show 2000 ml.
15. Draw packet of milk 500 ml. Show 4 packets = 2 L.
16. Draw 1000 ml beaker. Mark 250 ml, 500 ml, 750 ml.
17. Draw balance with 2 bags: 5 kg vs 7 kg. Show heavy side down.
18. Draw 3 apples 1 kg. Show 9 apples = 3 kg.
19. Draw 4 pens 200 g. Show 20 pens = 1 kg.
20. Draw oil can 20 L. Show 10 bottles × 2 L each.

Blueprint — Lesson 14: How Big? How Heavy?

Objective	No. of Q	Marks	Difficulty Level
Knowledge	2	2	2 Easy
Comprehension	2	3	1 Easy, 1 Medium
Application	4	7	2 Medium, 2 Hard
Skill (Figures)	2	3	1 Easy, 1 Medium
TOTAL	**10**	**15**	**Easy 40% · Medium 40% · Hard 20%**

Model Question Paper – Lesson 14: How Big? How Heavy?

Class: 5 **Subject:** Mathematics
Max Marks: 15 **Time:** 30 minutes

Section A — Knowledge (2 × 1 = 2)

1. 1000 g = ? **(Ans: 1 kg)**
2. 1 L = ? ml **(Ans: 1000 ml)**

Section B — Comprehension (2 × 1.5 = 3)

3. Why do we use kg instead of g for heavy objects?
   Ans: To handle large numbers easily.
4. Which has more: 750 ml or ½ litre?
   Ans: Equal, both 0.75 L vs 0.5 L → 750 ml is more.

Section C — Application (4 × 1.75 = 7)

5. Convert 3.5 kg into g. **(Ans: 3500 g)**
6. A jug holds 2.5 L. How many ml? **(Ans: 2500 ml)**
7. A shopkeeper sells 2 kg rice and 750 g sugar. Total weight? **(Ans: 2.75 kg)**
8. A can contains 20 L oil. How many 2 L bottles can be filled? **(Ans: 10 bottles)**

Section D — Skill (2 × 1.5 = 3)

9. Draw 1 L bottle. Shade 500 ml.
10. Draw balance scale: left pan 1 kg, right pan 500 g. Which side heavier?
    Ans: Left pan.